Psychologists' attitudes and clinical communication towards lesbians and gay men

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THESIS OVERVIEW

This thesis in being presented in one volume, in order to partially meet the requirements for the Doctorate in Clinical Psychology (D.Clin.Psychol.) at the University of Liverpool. The volume reports a systematic review, an empirical paper, and a concluding extended discussion.

The systematic review summarises 18 research papers published in the English language between January 1990 and May 2013, exploring psychologists' attitudes and behaviours towards Lesbian and Gay (LG) populations, with the aim of submitting it for publication to the '*Clinical Psychology Review*'.

The empirical paper reveals data obtained from two quantitative longitudinal studies with samples of clinical psychologists-in-training based in the United Kingdom. The paper explores the relationship between participants' demographic differences, attachment styles, attitudes towards LG people, and clinical communication with a simulated 'gay client' with common mental health needs. The aim is to submit the empirical paper to the '*Journal of Consulting and Clinical Psychology*'.

The concluding extended discussion combines a longer discussion section highlighting the overall research findings with relevant literature, a personal reflection statement, a short article for a newsletter, a report for participants, and a research proposal. The aim is to bring future research interest but also to make findings easily available to participants and the public.

PREAMBLE FOR THESIS

Over the last few decades the increased visibility and acceptance of Lesbian and Gay (LG) populations has been received with controversy and inconsistency. Alongside the abolishment of criminalisation of consented same-sex adult sexual activities there has been an emergence of anti-discriminatory legislation in many westernised countries to protect LG people, in regards to social aspects of daily living, employment opportunities, education, career progression, family life, and healthcare access and treatment (International Lesbian and Gay Association [ILGA], 2012; Pew Research Centre, 2013). Promulgated by this cultural shift, the United Nations Human Rights Office (2013) created a video appeal called "The Riddle", calling for equality and protection of people belonging to all sexual orientations, whilst identifying that 76 countries worldwide still treat lesbian, gay, bisexual and transgender (LGBT) people as criminals, dangerous, abnormal, and diseased. This suggests prevalence of negative views and attitudes towards LG people. There is an urge to a worldwide backlash on such discrimination and violence and for the protection of people's human rights.

Despite the recognition of the potential bio-psycho-social impact that discrimination and prejudice can have on people belonging to minority groups (Meyer, 2003; Davies, 2012), many cultures have approached such needs differently when providing legislative and professional guidance for healthcare professionals working with LG people. The American Psychological Association (APA) initially published guidelines for psychotherapy with LGBT clients in 1991 (American Psychological Association; APA, 1991). These appeared nearly 20 years after the American Psychiatric Association reviewed their position in 1973 to remove homosexuality from subsequent diagnostic manuals (American Psychiatric Association [APA], 1973; 1974a; 1974b). Despite the APA position in 1975 that "*homosexuality per se implies no impairment in judgment, stability, reliability, or general social or vocational capabilities*" (APA, 1973; Conger, 1975, p. 633), their later guidelines in 1991 were a ground-breaking stance to promote positive practice and prevent

discrimination amongst psychologists when working with LG populations. Around the same time, in 1990, the World Health Organisation (WHO, 1992) also changed their position and removed homosexuality from their classification manuals.

In the United Kingdom (UK) progress was also evident, with the British Psychological Society (BPS) slowly endorsing positive views toward sexual orientation, with the formation of the Lesbian and Gay Psychology Section in 1998 (renamed Psychology of Sexualities Section in 2009; e.g. Barker & Langdridge, 2010) and with the eventual publication of guidelines in 2012 for psychologists working with sexual and gender minorities (British Psychological Society [BPS], 2012). In fact, as far as LG history is concerned, since the coining of the term 'homosexuality' in 1869 by Kertbeny (see Herzer, 1986; Stonewall, 2012) up to the emergence of the term 'heterosexim' by Herek (1990), more progress has been achieved in the last 20 years around policy and research towards LG ethical practice than in the previous century of LG political and psychiatric visibility. The social narrative amongst psychologists and psychiatrists has also shifted over the last few decades (Blount, 2002), with research attempting to investigate well-being factors to being LG instead of attempting to find causes and cures to homosexuality.

Despite the increase in affirmative attitudes amongst mental health professionals, previous research has been somewhat unclear and divisive inasmuch that cultural negativity about LG people still prevails (Herek & McLemore, 2013). Although professional policies are attempting to enforce an overall rejection of the pathological model of homosexuality and adoption of an affirmative position (Department of Health [DoH], 2006; APA, 2012; BPS, 2012), previous research suggests that psychologists may experience the same attitudinal biases as the general population, due to wider cultural pressures. Furthermore, research has demonstrated that discrimination can persist even when legislative safeguards are created to eliminate it (e.g. Hofstra, van Oudenhoven, & Buunk, 2005). Thus, the current need to focus study on the research around psychologists' position in regards to LG identities and topics.

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CHAPTER 1

Systematic Review[1]

Psychologists' attitudes and behaviours toward lesbians and gay men: a systematic review

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[1] This review will be submitted for publication to the *Clinical Psychology Review (see Appendix 1.A)*

ABSTRACT

Research suggests that people may hold positive explicit attitudes whilst holding negative implicit attitudes towards Lesbian and Gay (LG) people. While this seems evident amongst the general population, a previous systematic review (e.g. Boysen, 2009) only identified one study investigating explicit and implicit attitudes towards LG identities amongst counsellors. There are no similar systematic reviews using samples of psychologists, so this review aims to bridge that gap by conducting an analysis on studies completed between January 1990 and May 2013. In this review were included studies that: a) investigated attitudes of psychologists or psychologists-in-training towards LG people; b) included original data and findings; c) included comparison groups; and d) had been carried out in countries where homosexuality is not criminalised and where there is anti-homophobia legislation currently in place. Of the initial 933 studies identified, 18 met the main inclusion criteria. Designs were diverse and used a range of attitude measures. Only one study investigated implicit attitudes. Despite the diverse range of designs and measures it appears that positive attitudes to LG people may be conditional upon several factors, including gender, religiosity, socialisation, training, and level of education of psychologists. Training courses can potentially address such needs, but these need to be designed specifically to address LG topics, since general training on diversity topics may not promote positive implicit attitudes to LG people.

Keywords and major descriptors: Implicit attitude; Homophobia; Psychologist; Sexual orientation; Homosexuality; Lesbian and Gay

1.1. INTRODUCTION

Research in implicit attitudes toward Lesbian and Gay (LG) people is an emerging phenomenon amongst the general population (Banse, Seise & Zerbes, 2001; Nosek & Banaji, 2009; Ranganath & Nosek, 2007; Steffens & Jonas, 2010), but has remained less evident as a focus of interest amongst healthcare professionals, including psychologists. Self-reported attitudes are more commonly researched, whilst encountering some controversy and inconsistency in findings (Herek, 2009; Herek, Gillis & Cogan, 2009). For instance, a recent systematic review (Tucker & Potocky-Tripodi, 2006) evaluated 17 studies investigating processes of improving attitudes towards LG people in university students. Whilst identifying issues with sampling, design and interventions used by the studies, the review reported the sole use of explicit measures of attitudes that were often adapted and altered for each study, thus reducing reliability and increasing reporting biases.

Another systematic review (Boysen, 2009) into counsellors' attitudes towards LG and Black and Minority Ethnic (BME) people identified 20 studies reporting a clear divide between implicit and explicit attitudes, suggesting that even counsellors with self-reported positive attitudes would still hold implicit prejudice towards LG and BME people. These findings are problematic, as unrelated implicit and explicit attitudes may conflict (Greenwald, Poehlman, Uhlmann, & Banaji, 2009; Rydell, McConnell & Mackie, 2008) and cause a process of attitudinal dissociation (Briñol, Petty & Wheeler, 2006; Nosek & Banaji, 2009) known as cognitive dissonance (Festinger, 1957; Spencer & Myers, 2006). Cognitive dissonance creates psychological tension, slows down thinking processes, and makes people's behaviour harder to predict, thus impacting on relationships and social structures (Gawronski & Strack, 2012).

There are no similar systematic reviews using Master's or Doctorate-level psychology professionals, either licensed to practice or those in-training. In this review this gap in the literature is explored, while attempting to investigate studies on implicit and explicit attitudes and how these inform psychologists' behaviour towards LG people.

1.1.1 Definitions and working concepts

Attitudes

Attitudes are broadly described as associations "*between a concept and an evaluation – an assessment of whether something is good or bad, positive or negative, pleasant or unpleasant*" (Nosek & Banaji, 2009: 84). Despite this brief conceptualisation, it is now widely accepted that attitudes are divided into implicit and explicit systems (Whitfield & Jordan, 2009). While implicit attitudes are unconscious or unidentified cognitions largely based on a person's past experiences towards a particular social concept or object (Greenwald & Banaji, 1995), explicit attitudes are more active and deliberate evaluations of our surroundings and social spheres (Rydell & McConnell, 2006). These two attitudinal systems may or may not be concordant, and both can coexist in the same individual.

Licensed psychologist

There are many terms being used to identify psychological professionals. Some terms include counsellors, accredited psychologists, regulated psychologists, qualified psychologists, chartered psychologists, and licensed psychologists. These terms vary depending on jurisdiction and country, but they all imply that the professional holds a recognisable qualification and is licensed to legally practice psychology in their country. As such, the term Licensed Psychologist will be used throughout this review to ensure consistency.

Psychologists-in-training

The term psychologist-in-training will be used to identify people who are studying a recognisable Master's or Doctoral level qualification in a field of applied psychology (i.e. clinical, forensic, counselling, and educational). The aim is to distinguish this population from those who are licensed to practice, within the studies reviewed herein.

1.1.2 Aims

This review attempts to systematically identify studies that evaluate psychologists' attitudes toward LG populations and how these attitudes inform behaviour and communication. In particular, interest is drawn to particular individual characteristics that may stand out in attitudinal research, like gender, education, and ethnicity.

1.2. METHOD

1.2.1 Inclusion and exclusion criteria

Inclusion and exclusion criteria (Table 1.1) were applied throughout hand- and electronic-search to ensure that only relevant articles were included in the final data extraction stage.

Table 1.1. Inclusion and exclusion criteria

Inclusion	Exclusion
• Articles published in English* languages between January 1990 and May 2013	• Studies focusing on attitudes towards sexual deviancy, underage sexual activity, sexual abuse, sexual offending, pornography, substance misuse, same-sex marriage, same-sex parenting, sexuality in learning disabilities populations, HIV/AIDS, reparative therapy, gender reassignment, internalised homophobia, or sexuality of professionals
• Studies that had been carried out in countries where homosexuality is not criminalised and where there is anti-homophobia legislation currently in place (Appendix 1.B)	
• Studies focusing solely on psychologists of all models, or psychologists-in-training at master or doctoral level study, or as a separate group as part of a comparative study	• Studies focusing on other healthcare professionals where psychology was not being included as a comparative group, undergraduate or unclear samples
• Peer reviewed studies and reports, literature and systematic reviews and articles, and doctoral-level Theses and Dissertations	• Undergraduate and master level dissertations, posters, books, theoretical papers, tool development studies, case studies, or qualitative research
• Studies measuring at least a component of attitudes towards homosexuality, i.e. gay men and lesbians	• Studies focusing solely on attitudes towards bisexuality, asexuality, transgender topics, or the 'third sex'

*Portuguese and Spanish languages were also included resulting in nil papers

The focus on LG populations, whilst excluding the bisexuality component is purposeful, due to previous research identifying that attitudes toward bisexuality may require separate evaluation (San Francisco Human Rights Commission, 2010; Barker et al., 2012). Negative attitudes toward bisexual people, or '*biphobia*', from both heterosexual and homosexual communities remain visible (Firestein, 1996; Hutchins, 2005; Barker & Langdridge, 2008, 2010) due to perceptions that bisexuality does not conform to accepted models of sexual orientation currently discussed in the literature (Barker et al., 2012). Similarly, transgender and transsexual identities are not solely included in this review due to prevailing paradigms (Mitchell & Howarth, 2009) in medical/mental health professions and legal spheres that view this sexuality/gender variant as having links to psychopathological components (e.g. identity disorders in ICD 10; World Health Organisation, 1992) which may divert biases to other models of mental illness. The exclusion of some topics (i.e. Attitudes to HIV/AIDS in the context of sexuality) was purposeful in order to minimise potential attitudinal confounds into the current review towards those topics and not the target population.

1.2.2 Database search

A comprehensive literature search was conducted using Medline (255), PsycINFO (566), CINAHL Plus (80), ERIC (65), PsycARTICLES (42) and ScienceDirect (34) in December 2012 and again in May 2013 (update). Additionally The Cochrane Library was also searched but this did not result in any papers. A separate search was conducted within ProQuest Dissertations and Theses, which identified six further potential studies. Only journal articles published from 1990 onwards were searched, as these were likely to be influenced by the declassification of homosexuality from the ICD-10 (WHO, 1992).

1.2.3 Search terms

During the search a range of terms, and variations, were used to potentially capture the different expressions being used in research to identify psychologists, counsellors, psychotherapists and psychological therapists, both with a license to practice or those in-training at either master or doctoral level. Search criteria followed database guidelines to maximise results. The following terms were searched:

(psycholog* OR doctor* OR therap* OR counsel* OR psychotherap*)
AND
(attitude* OR prejudic* OR homophob* OR distance OR behavi*)
AND
(homosexual* OR gay* OR lesbian*)
AND
(outcome* OR intervention* OR change*)

These words were searched simultaneously to ensure that all articles included at least one of the terms searched and their respective semantic variations (see Appendix 1.C).

1.2.4 Hand-search

A hand-search was also conducted within 'The Journal of Homosexuality' (3), 'The Journal of Gay and Lesbian Mental Health' (2), 'Counselling and Psychotherapy Research' (1), 'Journal of Marital and Family Therapy' (1), and 'Psychology and Sexuality' (1). Reference lists of key articles and review papers were also searched for relevant publication, which resulted in eight further potential articles. An article was also identified after contacting the author of a commonly used tool of assessment of attitudes toward LG people (Gregory Herek, Personal Communication, 16th November 2012).

1.2.5 Article identification and extraction

Figure 1.1 depicts a flow chart for the above article extraction and search method.

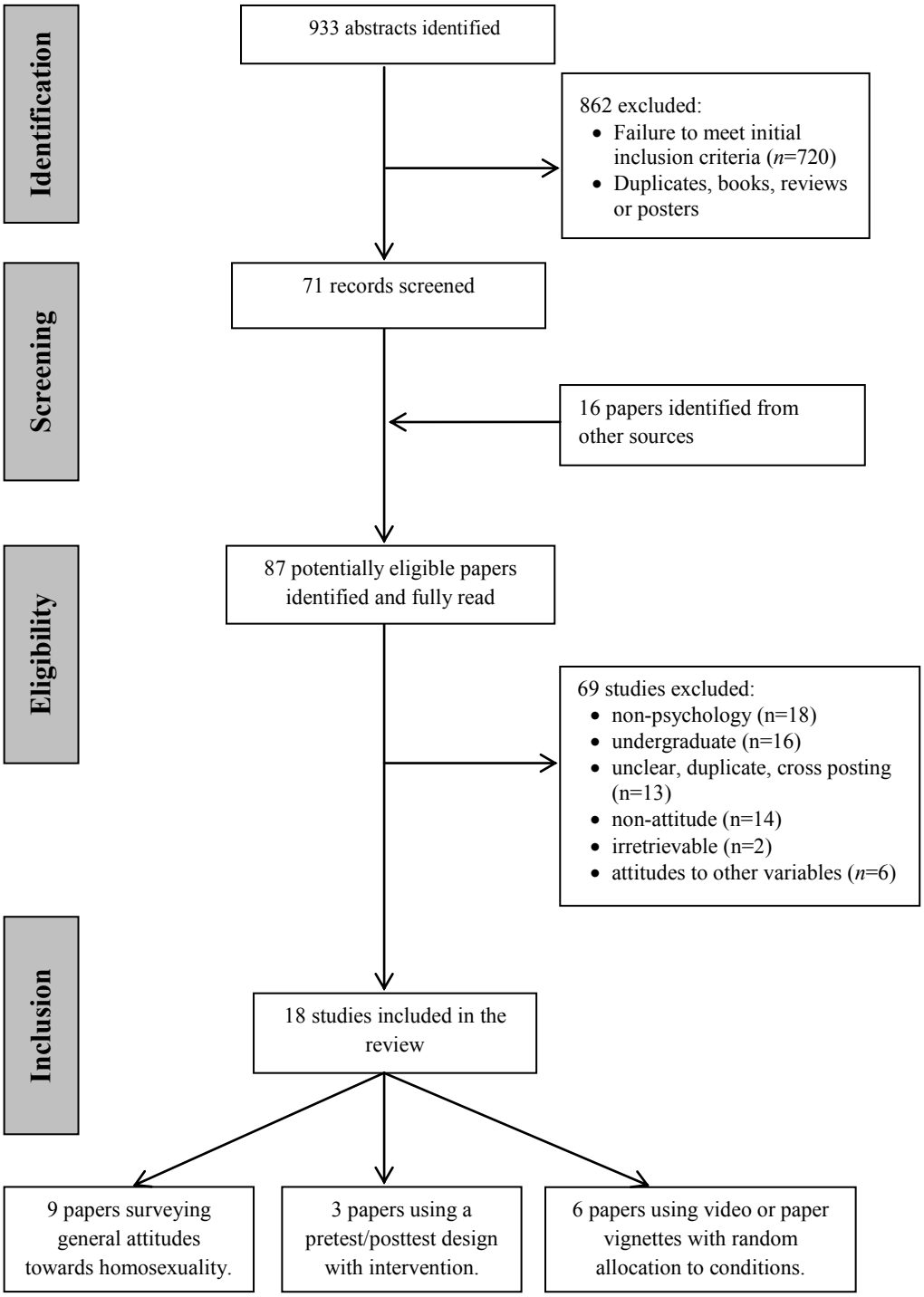

Figure 1.1. Flowchart for identification and extraction of articles and studies

From the initial search, based on scanning titles and abstracts only, and after excluding duplicates, 71 papers remained for full-text search. Of these and combined with the 16 articles found by hand search, personal communication and reference lists, a further identification was conducted in more detail, which led to the exclusion of 69 articles. This selection process identified 18 studies being considered as suitable for final inclusion into this systematic review.

1.2.6 Quality assessment

Studies in this review were observational and used a range of heterogeneous designs and methodologies. Consensus varies when selecting a tool to assess the quality of such studies, due to variations and complexity in sampling, materials and data analysis. To minimise reviewing bias, studies were assessed for quality following guidelines from the Equator Network (i.e. Von Elm et al., 2008; Moher et al, 2010; Welch et al., 2012), the Cochrane Collaboration Taskforce (i.e. Armstrong et al., 2007; Higgins & Green, 2011) and Dixon-Woods et al. (2006, 2007). Table 1.2 demonstrates the areas assessed for each study.

Interpretation of quality for each article followed the approach used by Van de Kooy et al. (2007), whereby articles would be given a hierarchical classification in terms of quality based on the total score (or percentage) achieved. As such, studies achieving score above 6 (>60%) would be classified as 'high quality'; studies scoring 5-6 points (50-60%) would be categorised as 'moderate quality'; while studies scoring below 4 (<40%) would be deemed 'low quality'. Articles were identified as following one of the resulting research designs: A) survey studies with mixed descriptive and cross-sectional designs; B) studies using non-randomised group comparison using cross sectional designs; C) studies evaluating attitudes after an intervention using pretest-posttest designs; and D) studies using experimental processes by randomly allocating the sample of participants to two or more conditions in between-subjects designs.

Table 1.2. Areas of quality assessment in general studies or empirical research

Area of quality assessment	Score
Aims	
1) Research questions or hypotheses are stated	-/+
Population	
2) Basic description of demographics and sample characteristics	-/+
Design	
3) Sampling method is reported, including setting or location	-/+
4) Total sample pool and response rates are reported	-/+
5) Mention of ethical approval or safety measures for participants	-/+
Measurements and materials	
6) Attitude measures are clearly defined, including reporting of alpha (reliability) levels	-/+
7) Outcome or behavioural measures are used, and any alpha levels are reported	-/+
Analysis	
8) Methods of statistical analysis are reported, and are appropriate for sample size and characteristics	-/+
Results	
9) Results are clearly reported for each of the hypotheses or research questions, including any frequencies, descriptive data and any missing information	-/+
10) Inferential data is reported, including significance levels, relationships between variables, effect sizes, adjustment to the data, and any non-significance findings	-/+

All 18 studies were appraised against the quality assessment tool. To ensure inter-rater reliability, two independent professionals also assessed 30% of the studies. This resulted in 83.9% concordance amongst all three reviewers and an inter-rater alpha of $\alpha = .85$. Table 1.3 depicts the inter-rated assessment results for each of the articles. The most problematic areas emerging from all studies were the inconsistency in describing the sample and sampling process, reporting ethical approval, and reporting inferential data. In particular, reliability values for all measures used were inconsistently reported throughout, and inferential data was also overlooked in favour of more descriptive results. For studies that developed their own attitude measures, vital information was missing on reliability data and scale development processes.

Table 1.3. Inter-rated quality assessment results for all 18 reviewed articles

		*Area of quality assessment**										
Study	Design**	1	2	3	4	5	6	7	8	9	10	Total %
1. Anhalt et al., 2003, USA	A	+	+	+	+	-	+	-	+	+	+	80
2. Annesley & Coyle, 1995, UK	A	-	+	+	+	-	+	-	+	+	+	70
3. Barrett & McWhirter, 2002, USA	D	+	+	+	+	-	+	-	+	+	+	80
4. Blount, 2002, USA	D	+	+	+	-	-	+	-	+	+	+	70
5. Bowers & Bieschke, 2005, USA	D	+	+	+	+	-	+	+	+	+	+	90
6. Boysen & Vogel, 2008, USA	B	+	+	+	+	+	+	-	+	+	+	90
7. Clarke, 2010, USA	D	+	+	+	+	-	+	-	+	+	-	80
8. Fell et al., 2008, Australia	C	+	-	-	-	-	+	+	+	+	+	60
9. Finkel et al., 2003, USA	C	-	+	+	+	-	-	-	-	+	-	40
10. Gelso et al., 1995, USA	D	+	+	+	-	-	+	+	+	+	+	80
11. Jones, 2000, Australia	A	+	+	+	+	-	+	+	+	+	+	90
12. Jordan & Deluty, 1995, USA	A	+	+	-	+	-	-	-	+	+	+	60
13. Kilgore et al., 2005, USA	A	+	+	+	+	-	-	-	+	+	+	70
14. Korfhage, 2006, USA	A	+	+	+	+	+	+	-	+	+	+	90
15. O'Brien, 2003, USA	D	+	+	+	+	-	+	-	+	+	+	80
16. Rock et al., 2010, USA	A	+	+	+	-	+	+	-	+	+	+	80
17. Scher, 2009, USA	C	+	-	+	+	-	+	+	+	+	+	80
18. Wolf, 2009, USA	A	+	+	+	+	-	+	-	+	+	+	80
Mean result		.9	.9	.9	.78	.17	.83	.28	.94	1.0	.9	

* Score one point for presence of item, score zero for missing or unclear item. Total score % is the sum of scores for all positive items multiplied by 10. Higher scores represent papers with higher quality.

** A = survey studies with mixed descriptive and cross-sectional designs; B = studies using non-randomised group comparison using cross-sectional designs; C = studies evaluating attitudes after an intervention using pretest-posttest designs; and D = studies using experimental processes by allocating the sample of participants to two or more conditions in between-subjects designs.

1.2.7 Data extraction and synthesis

From each study the most vital information was extracted and summarised into Table 1.4. For a more complete table please refer to Appendix 1.D.

1.3. RESULTS

Information for all 18 studies was summarised for clearer presentation within this review. Trends in attitude data were divided by decade of article publication, and within each decade studies were collapsed by the main attitude tool they used. One study was carried out in the United Kingdom (UK) (Annesley & Coyle, 1995), two in Australia (Jones, 2000; Fell, Mattiske & Riggs, 2008) and the remaining 15 in the USA. Three studies were conducted between 1990 and 1999, 13 studies between 2000 and 2009, and two studies from 2010 to May 2013.

1.3.1 Summary of participants characteristics and demographics

Nine studies recruited a sample of psychologists-in-training (Anhalt et al., 2003; Barrett & McWhirter, 2002; Boysen & Vogel, 2008; Fell et al., 2008; Finkel et al., 2003; Gelso et al., 1995; Korfhage, 2006; Rock, Carlson & McGeorge, 2010; Scher, 2009), seven used licensed psychologists (Annesley et al., 1995; Blount, 2002; Bowers & Bieschke, 2005; Clarke, 2010; Jordan & Deluty, 1995; Kilgore et al., 2005; O'Brien, 2003), and two used a mix of both (Jones, 2000; Wolf, 2009). In total, across all studies there were 1,603 licensed psychologists (response rate 36.5%) and 1,100 psychologists-in-training (response rate 53.3%), with no significant difference. One study (Jones, 2000) included a sample of 44 undergraduate psychology students as comparative data. Some data may not be directly compared between licensed psychologists and psychologists-in-training due to studies' methodological differences.

Table 1.4. Summary of studies' characteristics

Study	N	Mean Age (range)	Attitude measure	Key attitude findings
1. Anhalt 2003	200	28.5 (22-50)	ATLG	More positive attitude than the general population; Males more negative attitudes than females.
2. Annesley 1995	69	41.4	ATLG	High exposure to lesbian culture and low religiosity lead to positive attitudes
3. Barrett 2002	162	32.2 (22-55)	IHP	Higher homophobia significantly predicted assignment of unfavourable adjectives to clients.
4. Blount 2002	139	39.6 (24-76)	ATLG-S	Women's attitudes more positive than men's; Gay clients more likely given a diagnosis of adjustment disorder
5. Bowers 2005	303	53.6 (30-91)	SD	Females attitudes more positive attitudes with better treatment expectations for clients
6. Boysen et al. 2008	105	?	IAT-P	Implicit negative bias toward LG despite high multicultural competency.
7. Clarke 2010	296	54.5	LGB-KASH	Significant relationship between attitudes toward LG, competence and prognosis for clients
8. Fell 2008	7	31.6 (23-53)	IHP	Attitude scores positive but low identification of discrimination in clinical psychology.
9. Finkel 2003	48	25 (22-54)	RHS	Negative attitude levels reduced, and positive attitudes increased, from baseline to post-training.
10. Gelso 1995	68	?	DAS-LG	Greater homophobia related to more avoidant behaviour; Men more anxious, overinvolved and less able to recall session information
11. Jones 2000	104	?	MATHS	Males and undergraduates significantly more homophobic in their thinking, intentional behaviour, and feelings of fear or discomfort towards LG.
12. Jordan 1995	139	?	Pre-normed scale	Views of LG as 'unacceptable' more likely to support use of aversion therapy, or other alternative, to change the SO of clients.
13. Kilgore 2005	437	Reported categorically	Pre-normed scale	Females significantly more accepting of LGB and gay-affirmative therapy.
14. Korfhage 2006	70	29.08 (22-57)	ATLG	Viewing and endorsing traditional gender roles were more likely to predict negative attitudes toward LG.
15. O'Brien 2003	71	56.10 (34-85)	DAS-LG	Participants in heterosexual condition would use 'affirming and understanding' interventions than those in gay condition.
16. Rock 2010	190	29.82 (21-61)	SOCCS	Overall positive attitudes toward LGB clients; LGB training related to competency self-perception.
17. Scher 2009	37	?	LGB-KASH	Significant increase in Knowledge and Internalised affirmativeness; significant reduction in intrapersonal conflict (with respect to LGBT affirmativeness).
18. Wolf 2009	269	Reported categorically	LGB-KASH	Males significantly lower positive attitudes and more prejudice, and less willing to grant civil rights to LGB people; Religiosity as predictor of negative attitudes; Social contact with as moderator for attitudes.

Note. **ATLG** = Attitudes toward Lesbians and Gay men (Herek, 1984); **ATLG-S** = Attitudes toward Lesbians and Gay men – short version (Herek, 1988; 1994; Herek & Glunt, 1993); **IHP** = Index of Homophobia (Hudson & Ricketts, 1980); **IAT-P** = Implicit Association Test –paper version (Lowery, Hardin & Sinclair, 2001); **LGB-KASH** = Lesbian, Gay, Bisexual Knowledge & Attitudes Scale for Heterosexuals (Worthington et al., 2005); **MATHS** = Modified Attitudes Toward Homosexuality Scale (Price, 1982); **RHS** = Riddle Homophobia Scale (Riddle, 1994; Wall, 1995); **DAS-LG** = Daly Attitude Scale – Lesbian and Gay (Daly, 1990); **SD** = Semantic Differential (Osgood et al., 1957); **SOCCS** = Sexual Orientation of Counselor Competency Scale (Bidell, 2003, 2005).

Age

Age was reported in 13 studies, and of these, two (Kilgore et al., 2005; Wolf, 2009) reported it categorically. The combined mean age for the 11 studies was 38.31 years, ranging from 21 to 91 years for all samples; psychologists-in-training's mean age was 29.4 years (SD = 2.6) while licensed psychologists mean age was 46.8 years (SD = 7.9), significant at $p < .01$ with large effect size ($d = 2.95$).

Gender

The *Female:Male ratio* varied throughout the studies. One study used a 100% female sample (Fell et al., 2008). One study did not report gender (Scher, 2009) and the remainder of studies reported a higher proportion of female participants (M = 67%, SD = 11.2), or 58% for licensed psychologists and 73% for psychologists-in-training, overall ranging from 45 to 88%. The difference in response between genders was significant at $p < .001$ with large effect size ($d = 3.04$)

Ethnicity and religion

Five studies did not report ethnicity (Annesley et al., 2003; Fell et al., 2008; Jones, 2000; Jordan et al., 1995; Scher, 2009). Ethnicity was thus not reported consistently, with a larger proportion of participants (84%, SD = 11.3) falling into the 'White' or 'Caucasian' category, ranging from 34 to 100%. The difference in response rate between 'White' and BME samples was significant at $p < .0001$. The 'White' sample of participants was equally distributed between psychologists-in-training and licensed psychologists, respectively 78 and 83%. Only one study reported religion affiliation with no specific strength groups (O'Brien, 2002).

Sexual orientation

Sexual orientation of participants was not consistently reported, with a higher proportion of self-identified heterosexual people in most of the studies (90%, SD = 8.25), significant from other sexual orientations at $p < .0001$. Five studies did not report sexual orientation (Clarke, 2010; Fell et al., 2008; Finkell et al., 2003; Gelso et al., 1995; Jones, 2000). The heterosexual sample was equally distributed between psychologists-in-training and licensed psychologists, respectively 93 and 89%.

Education and experience

All studies recruited samples primarily at master's and doctoral level of education, either from clinical, counselling, forensic, educational and/or family therapy settings despite not being consistently reported. The samples in two studies had also previously received a degree in medicine. One study compared their doctoral-level sample with undergraduate psychology students (Jones, 2000). All licensed psychologists were members of professional bodies, like the American Psychological Association, British Psychological Society, Australian Psychological Society, or equivalent, at the time of the study. All psychologists-in-training were enrolled in approved psychology courses leading to a license. Theoretical orientations included cognitive and /or behavioural, psychodynamic, interpersonal, systemic, humanistic, feminist, person-centred, and integrative. These were not reported consistently throughout. Contact with LG clients and LGB training was reported in five studies, with a significant majority ($p < .0001$) who had never had such clinical opportunity (M = 88.7%, SD = 11.2).

1.3.2. Summary of attitude measures

Studies used a variety of assessment tools to investigate attitudes toward LG people. There was not a single tool being consistently used throughout, with some studies investigating homophobia instead of attitudes. Apart from one study (Boysen et al., 2008)

that investigated implicit attitudes toward gay men and lesbians with a manually timed paper version of the Implicit Association Test (IAT-P; Lowery, Hardin & Sinclair, 2001), all other studies utilised self-report measures on explicit attitudes and/or homophobia, including the Attitudes toward Lesbians and Gay men (ATLG; Herek, 1984, 1988; 1994; Herek & Glunt, 1993); the Lesbian, Gay, Bisexual Knowledge & Attitudes Scale for Heterosexuals (LGB-KASH; Worthington, Dillon & Becker-Schutte, 2005); the Riddle Homophobia Scale (RHS; Riddle, 1994; Wall, 1995); and the Daly Attitude Scale – Lesbian and Gay (DAS-LG ; Daly, 1990). Appendix 1.E contains a brief description of the explicit measures and which studies used them.

1.3.3. Summary of outcome measures

Eleven studies used at least one outcome measure alongside the attitude tools. There was no single measure most commonly used throughout. Areas assessed included: competence (Clarke, 2010; Fell et al., 2008; Rock et al., 2010); knowledge (Fell et al., 2008); behaviour changes (Finkel et al., 2003; Gelso et al., 1995; O'Brien, 2003; Scher, 2009); countertransference (Gelso et al., 1995); recall of information (Gelso et al., 1995); anxiety and avoidance (Gelso et al., 1995); general affective reactions (Jones, 2000); clinical impressions (Blount, 2002; Bowers et al., 2005; Clarke, 2010, O'Brien, 2003); and pleasant/unpleasant adjective association (Barrett et al., 2002).

These measures were either used as part of a single survey design, after exposing participants to a case vignette where clients' sexual orientation was manipulated as part of a group condition (Barret et al., 2002; Blount, 2002; Bowers et al., 2005; Clarke, 2010; Gelso et al., 1995; O'Brien, 2003), or after training workshops aiming for change in participants' attitudes and knowledge about LGB topics (Fell et al., 2008; Finkel et al., 2003; Scher, 2009). The latter used pretest-posttest designs as previously mentioned.

1.3.4. Trends in attitudes by decade

All studies reported prevalence of explicit attitudes amongst licensed psychologists and psychologists-in-training. Only one of 18 studies explored implicit attitudes alongside explicit bias. Most studies made adaptations to the tools, like rewording and adding items, changing response protocol, or adding other concepts like 'bisexual' and/or 'transgender'. Whenever possible data were standardised for direct comparison. There was a difference in attitudinal findings by decade, which will be explored below.

Studies between 1990 and 1999

Three studies (Annesley et al., 1995; Jordan et al., 1995; Gelso et al., 1995) were identified for this decade.

ATLG - Annesley et al. (1995) reported that 58 licensed clinical psychologists (84.6%) (Total *n*=69) rated positively in the ATLG (lesbian subscale; Herek, 1984). It was reported that "*clinical psychologists…exhibited positive attitudes towards lesbians and lesbianism*" (p.330), and more than 63% of participants agreed with items relating to 'lesbianism and parenting'. Participants' responses "*were collapsed from the original seven-point scale into a three-point scale*" (p.328). Whilst no rationale is provided for this collapsing of responses, the reliability alpha is given as α=.87. Further results suggested that higher exposure to lesbian identities and low religiosity levels were significant ($p < .01$) predictors of positive attitudes towards lesbians. No other information was provided.

Pre-normed scale - Jordan et al. (1995), using a completely different design with a pre-normed tool, reported that 110 licensed psychologists (79.1%) (Total *n*=139) viewed '*homosexuality as acceptable*'. Their study also compared psychologists trained before 1970, after 1978 or in between those dates, to account for changes in declassification of homosexuality of the Diagnostic and Statistical Manual of Mental Disorders (DSM-II; American Psychiatric Association, 1973; 1974a; 1974b). Results suggested that neither

group categorised homosexuality as "*a mental, personality, or psychosexual disorder*" (p.452). However, there was a statistically significant difference ($p < .05$) between psychologists who trained after 1978 who viewed homosexuality as '*acceptable'* when compared to those trained prior to 1970, with a large effect size ($r = .93$). Although this study used a pre-normed scale with little information about its development and reliability, further data revealed that viewing homosexuality as '*unacceptable'* was significantly ($p < .001$) associated with promoting the use of aversion therapy, or other psychological and behavioural therapies, to change clients' sexual orientation. No other significant findings were reported. Overall, education and training seemed to be a significant predictor of positive attitudes toward LG people.

DAS-LG - Conversely, Gelso et al. (1995) used the DAS-LG (Daly, 1990) to measure homophobia levels in their sample of 68 psychologists-in-training. Gelso et al. (1995) reported reliability α=.95 for their study, which is consistent with earlier reports on internal consistency (α >.90) (Daly, 1990; Hayes & Gelso, 1993). Gelso et al. (1995) reported the mean homophobia scores for their undergraduate university sample[2] (n=441) was 45.1, which is significantly lower ($p < .01$) than the mean reported in Daly's (1990) original homophobia scale (M=49.3, SD=16.2), with a medium effect size (Cohen's $d = .37$). This suggests that attitudes of psychologists-in-training were significantly more positive to those of an undergraduate population carried out 5 years prior.

Overall, despite the scarcity of studies and variability of measures used during this decade, there was a trend of self-reported positive explicit attitudes toward LG identities emerging amongst psychologists, thus suggesting other potential factors that may be affecting attitudinal changes towards LG populations, such as age, level of education, or exposure to LG cultures.

[2] Average item-total correlation for the 16 items was .76, an internal consistency (α) of .93, and a test-retest reliability over a 4-week interval of .93.

Studies between 2000 and 2009

Thirteen studies were identified for this decade. For studies that used a similar assessment tool, often alterations were made to its original format. Using different versions of the tool and making modification affects direct data comparison, thus whenever possible data were standardised for each tool used. Appendix 1.F contains all standardised data for each tool described below.

ATLG - Three studies used the ATLG (Anhalt et al., 2003; Blount, 2002; Korfhage, 2006), either the longer version (Herek, 1984) or the shorter (Herek, 1988; 1994; Herek & Glunt, 1993). Data were standardised to allow direct comparison and to conform to recent scale instructions by Herek and McLemore (2011, 2013). Overall scores suggest that attitudes toward gay men (M = 2.13, SD = .28) are significantly ($p < .05$) more negative than attitudes towards lesbians (M = 1.77, SD = .18), with a large effect size ($d = .51$). Korfhage (2006) found a statistical difference ($p < 0.001$) where male participants, more than women, expected other men to conform to traditional gender and social roles, and often viewed gay men, more than lesbians, as breaking more of these roles. Also, licensed psychologists' attitudes were significantly ($p < .01$) more positive (M = 1.75) when compared with data from psychologists-in-training (M = 2.07). Data are significantly different ($p < .001$) from results reported by Herek & Glunt (1993) for their sample of English-speaking adults in the United States (n=937, M=6.0, SD=3.7). These suggest a positive shift on self-reported attitudes towards LG people across time, perhaps due to cultural acceptance and visibility of LG people in the media and as cultural symbols.

LGB-KASH - Two studies (Scher, 2009; Wolf, 2009) used the LGB-KASH (Worthington et al., 2005) over very different designs (pretest-posttest vs cross-sectional). This tool was originally developed over four studies with a total sample of 598 undergraduate students based in the USA, and it measures '*hate'*, '*knowledge'*, '*civil rights'*,

'*religious conflict'* and '*internalised affirmativeness'* on LG identities. Higher scoring on '*hate'* and '*religious conflict'* represented more negative attitudes, while higher scoring on the remaining subscales represented positive views.

Scher (2009) used the tool as part of a pretest-posttest design on 37 clinical psychologists-in-training to evaluate the efficacy of a workshop addressing LG topics. They altered the measure by adding a '*transgender'* component, despite the tool developer's advice against such changes (via personal communication). Gender was not reported. Results suggested that people scoring higher in the '*religious conflict*' susbcale scored higher in the '*hate'* susbscale, despite '*religious conflict'* significantly ($p < .001$) decreasing from baseline to six months follow-up. Furthermore, '*knowledge'* about LG topics seemed low at baseline (M = 2.05, SD = .95) and this increased significantly ($p \leq .001$) after training (M = 3.17, SD = 1.17) and was maintained six months later (M = 3.14). Scores around '*internalised affirmativeness'* and granting '*civil rights'* to LG people although positive also increased significantly from baseline ($p \leq .05$) to post-training.

Wolf (2009), on the other hand, used this tool as part of a survey design, to evaluate whether the demographic characteristics of licensed psychologists and psychologists-in-training, i.e. gender and social contact with LG people, would significantly predict attitude scores. They did not report any alterations to the tool. Significant findings appeared around gender in the '*hate'* and '*civil rights'* scores, with male psychologists scoring significantly ($p < .01$) more negatively (M = 1.4, SD = .58) than women (M = 1.17, SD = .32). As for social contact, there was a statistically significant difference ($p < .01$) in all subscales, whereby participants who had prior contact with LG people scored more positively than those without prior social contact. In particular, males without social contact with LG people (M = 3.22, SD = 1.30) were significantly ($p \leq .001$) less likely to grant '*civil rights'* to LG people when compared to males with social contact (M = 1.75, SD = 1.00) or females (regardless of social contact). There were also significant ($p < .01$) findings for participants who held more conservative views of traditional gender roles and scored higher LGB-KASH '*hate'* and

'*religious conflict'* subscales. Correlational analysis revealed that licensed psychologists demonstrated more '*knowledge'* and less '*religious conflict'* than psychologists-in-training but data were not reported by authors.

RHS - The RHS (Riddle, 1994; Wall, 1995) was used in two studies (Scher, 2009; Finkel et al., 2003) during this decade. This tool relies heavily on participants' self-disclosure and self-awareness, and can be influenced by social desirability (Appendix 1.G). The tool does not appear to have been used in many studies and there are no data concerning reliability and validity. However, Finkel et al. (2003) reports the tool to have "*acceptable face validity and to be useful in the context of helping participants explore their attitudes and comfort level with LGBT individuals*" (p. 557).

Scher (2009) used the RHS in their study in conjunction with the LGB-KASH, as mentioned above. The RHS was altered to include the '*transgender'* component despite the original tool not being developed to measure attitudes towards this group of people. Results suggested positive attitudes at pretest (M = 6.17, SD = 1.44) which significantly ($p < .01$) increased at posttest (M = 6.61, SD = 1.39). This change was not maintained at follow-up (M = 6.45). No other data analyses were reported, in particular any potential correlation with the LGB-KASH or with the behavioural outcome measure. Similarly, Finkel et al. (2003) used the RHS to measure change after a training workshop consisting of two sessions with 48 clinical and forensic psychologists-in-training. Results show that most participants scored positively prior to the training (M = 5.73, SD = .58) and there was a positive shift in attitudes after the training (M = 6.27, SD = .32) with a large effect size (d = -1.15). The authors also reported a high percentage (>86%) of participants who had achieved two or more of their initial goals to get involved in LG affirmative activities or to find out more about LG culture, thus demonstrating behavioural intentions to get social closeness with LG people. Overall, it appears that in both studies using the RHS that scores achieved by psychologists-in-training were within the 'positive level of attitude' range.

IHP - Two studies (Barrett et al., 2002; Fell et al., 2008) used the IHP (Hudson & Ricketts, 1980). Barrett et al. (2002) allocated their sample of 162 counselling psychologists-in-training to one of four conditions (gender vs sexual orientation). They used the IHP in conjunction with case scenarios and an Adjective Check List (ACL; Gough & Heilburn, 1980) to elicit favourable and/or unfavourable adjectives about vignette clients. Whilst there was no significant different in IHP scores for all four conditions, further analysis revealed a significant ($p < .05$) interaction between participants scoring higher in the IHP and allocating more unfavourable adjectives to all vignette conditions, in particular to lesbian clients. This was also evident for participants scoring higher in the IHP and allocating less favourable adjectives to LG clients but not for heterosexual clients. Overall, lower homophobia scores resulted in the allocation of more favourable adjectives to LG clients. Although there were no gender differences in homophobia scores and allocation of unfavourable adjectives to LG clients, interestingly male psychologists-in-training assigned significantly ($p < .01$) more unfavourable adjectives to any client as their homophobia scores increased, when compared to females. Also, males were significantly ($p < .05$) less willing to actually work with a gay client in clinical practice, than females would. Further analysis revealed that psychologists-in-training with at least one LG friend scored significantly ($p < .001$) lower on the IHP than those with no friends or just LG acquaintances.

Fell et al. (2008) on the other hand, used the IHP on a pretest-posttest design with 7 clinical psychologists-in-training to evaluate the efficacy of a workshop on LG awareness. In conjunction they used several tools to evaluate behavioural intention to act positively towards LG people, self-rated clinical competence to work with LG clients, and knowledge about LG topics. A case vignette was also used in order to assess participants' presumption of heterosexuality in clients (i.e. heteronormativity). IHP scores suggest positive attitudes toward LG people, despite not shifting significantly from pre- to post-workshop. However, results on behavioural intention, clinical competence, and knowledge increased significantly ($p <.05$). On a practical level, results revealed that participants were unable to fully identify

discrimination towards LG people in clinical practice within the case vignette, either pre- or post-workshop. Due to the sample size, no further data were reported.

Pre-normed scale - Kilgore et al. (2005) surveyed 437 licensed psychologists by using the pre-normed scale developed by Jordan et al. (1995), mentioned previously. Reliability data were not reported for this study either. Significance levels were also not reported. When comparing data from both studies it is apparent that the percentage of psychologists taking an accepting stance towards LGB identity has increased in 10 years, from 79% to 92.5%. Kilgore et al. (2005) also found that 96% of their sample of psychologists would not support any therapy to change clients' sexual identity, while in Jordan et al.'s (1995) study this figure was 94.2%. Kilgore et al. (2005) further revealed an association between psychologists' gender, acceptability of LGB identity and the support of aversion therapy, but no inferential data were reported. As such, females (96%) were more likely to hold an accepting attitude toward LGB people when compared to males (88%) with the remaining percentage falling into the remaining categories (i.e., somewhat acceptable, not as acceptable, or unacceptable). Furthermore, fewer females (13%) than males (26%) regarded LGB sexuality as a result of pathology. More men (7%) than women (1%) would support the use of aversion therapy to change a client's sexual identity.

DAS-LG - O'Brien (2003) recruited 71 licensed psychologists and randomly allocated them into two conditions (gay/heterosexual client). The study used the DAS-LG (gay version; Daly, 1990) alongside case vignettes and the Structural Analysis of Social Behaviour scale (SASB; Humphrey & Benjamin, 1989). Psychologists also assigned their vignette client to the Global Assessment of Functioning (GAF; American Psychiatric Association [APA], 1994). Results from O'Brien (2003) suggested that psychologists' attitudes were significantly ($p < .001$) positive (M = 22.2, range 16-51), when compared to Gelso et al.'s (1995) data (M = 45.1) (mentioned earlier in this review) and with original data

from Daly (1990) (M = 46.7). A pattern then emerged with attitudes shifting positively over time, which is consistent with data from earlier studies. Further analysis revealed that psychologists in the gay male condition would significantly (p < .003) propose more controlling interventions than those in the heterosexual condition using the SASB. In Daly's (1990) original normative data, males (M = 52.6, SD = 17.4) were also significantly (p < .001) more negative towards gay men than females (M = 41.3, SD = 15.8), with a large effect size (d = .68). There were no other significant differences when analysing data by group condition, gender of participant, or levels of homophobia in the DAS-LG.

MATHS - Using a different tool, Jones (2000) recruited a sample of licensed psychologists, psychologists-in-training and undergraduates. The study used the MATHS (Price, 1982), alongside the Affective Reactions to Homosexuality Scale (ARHS; Van de Ven, Bornholt & Bailey, 1996) and the Homophobic Behaviour of Students Scale (HBSS; Van de Ven, Bornholt & Bailey, 1997) as outcome measures. Reliability data are reported. Analysis revealed statistical differences (p < .05) between scores on group qualification and gender of participants. As such, undergraduates were more homophobic in their thinking, feelings and intended behaviour (M = 23.8, SD = 2.93) than licensed psychologists (M = 16.3, SD = 2.52). In particular males (across all qualification levels) significantly (p < .05) displayed more fear, discomfort and guilt towards LG people (M = 22; SD = 15.2) than females (M = 16; SD = 12.9). All results presented large effect sizes (d > 1).

Semantic Differential - In another study, Bowers et al. (2005) recruited 303 licensed psychologists. The study used a Semantic Differential (Osgood et al., 1957) with a clinical vignette, and randomly allocated participants to one of six conditions (sexual orientation and gender of client) to assess participants' attitudes toward the client described in the vignette. Participants were also asked to rate clients' responsibility for their problems and asked to assign the client to the Global Assessment of Functioning (GAF; APA, 1994). Reliability

was reported. Results suggested that females significantly ($p < .05$) considered clients as '*stronger and more powerful*' than did male psychologists. Males significantly ($p < .05$) considered LG clients as '*more likely to harm other people*' than heterosexuals clients would, and also rated their vignette clients significantly ($p < .01$) more responsible for their problems, more likely to become suicidal during therapy, more likely to require hospitalization, and less likely to improve. The study revealed no other significant findings relevant for this review.

IAT - Only one study investigated implicit attitudes (i.e. Boysen et al., 2008) and correlated its results with scores achieved in a competency scale. This study used a manually-timed paper-and-pen version of the Implicit Association Test (IAT-P; Lowery et al., 2001) with the aim of measuring 105 counselling psychologists-in-training implicit bias and attitudes toward LG and BME people. The authors justified using the paper IAT by reporting the reliability and validity of this version as similar to computerised IATs (Cunningham, Preacher & Banaji, 2001; Lemm, 2001). This version of the IAT consisted of pictures of same-sex and heterosexual couples, and words representing concepts of 'Good' and 'Bad'.

Results indicated that faster responses represented more positive attitudes, with participants associating significantly faster ($p < .001$) images relating to heterosexual couples with positive words and images towards same-sex couples with negative words. On further analysis, participants' level of training in multicultural and LG competency did not differ in relation to IAT scores. Interestingly, participants' positive explicit attitudes to diversity, as measured via the cultural competency scale (CCCI-R; LaFramboise et al., 1991), were not correlated with the implicit scores, thus suggesting different cognitive factors/constructs. However, training in multicultural competence did predict more positive implicit attitudes towards, and competence in working with, BME people rather than LG people ($p < .01$). These findings suggest an array of hypotheses into the prevalence of negative implicit bias in

the presence of positive explicit attitudes, even after exposure to specific training targeting diversity topics. This leads to suggestions that measuring implicit attitudes is an important research arena that could take precedence in terms of exploring explicit attitude levels, in particular as these seem to be addressing diverging factors (Nosek & Smyth, 2007).

Studies from 2010 onwards

During this decade, only two studies have been found to evaluate psychologists' attitudes toward LG people. Such studies also varied significantly in terms of the measures they used. Clarke (2010) used the LGB-KASH (described above) and Rock et al. (2010) used the SOCCS (Bidell, 2003, 2005). The latter measure assesses indirect levels of attitudes towards LG people, in terms of clinicians' self-reported '*competence'*.

LGB-KASH - Clarke (2010) used the LGB-KASH tool as part of a semi-experimental design, whereby 296 licensed clinical and counselling psychologists were randomly allocated to either one of two vignette conditions (gay/heterosexual client). Participants were asked to complete a battery of measures on attitudes and knowledge about LG topics, together with clinical impressions and decisions about the vignette client. Similar to findings by Scher (2009), mentioned previously, data suggest a significant correlation (r = .38, p < .001) between '*hate'* scores (M = 5.82, SD = .40) and '*religious conflict*' (M = 5.15, SD = .84). These scores suggest a high prevalence of negative attitudes and religious conflict amongst participants, when compared to previous data (see above, Scher, 2009; Wolf, 2009). Participants who were more aware of, and sensitive to, cultural diversity showed significant (p < .05) more optimistic prognoses to client's difficulties; however, greater sensitivity to culture and better attitudes did not predict higher levels of concern for gay or heterosexual clients. Also, scores within the remaining subscales suggest that participants where less willing to grant '*civil rights*' to LG people (M = 1.63, SD = .98), despite their more positive scoring (M > 3) on the '*knowledge*' and '*affirmativeness*' subscales. Further analysis into

gender of participants significantly revealed ($p < .05$) that men with lower levels of 'affirmativeness' were more likely to demonstrate higher levels of concern for heterosexual clients, while men with higher levels of '*affirmativeness*' were more likely to endorse higher concern when the client was gay.

SOCCS - The study by Rock et al. (2010) used a modified version of the SOCCS (Bidell, 2003, 2005) to evaluate 190 psychologists-in-training's attitudes, skills, and knowledge about working with LG clients. Rock et al. (2010) adapted the tool by adding items relating to bisexuality, re-wording other items to make them more suitable for participants, and changing the tool response format (from 7- to 6-point Likert scale). They reported a comparable alpha level to the original tool, after making these changes. Overall SOCCS score suggested medium competency (M = 4.40, SD = .69) with a range between 2.61 and 5.84. Further analysis revealed that for each subscale the mean score was also within medium competency range (M > 3.7). There was a significant gender difference on the attitude subscale, whereby female participants scored more positively than males ($p < .001$). Also, participants with more clinical contact with LG clients significantly ($p < .05$) scored more positively in the '*skills'* subscale and within the overall SOCCS scale.

In summary, despite the diverse range designs and measures used to investigate attitudes, there appears to be an emerging pattern that positive attitudes to LG people may be conditioned to several factors, including cultural acceptance, socialisation, gender, religiosity, training, and education. In most studies investigating attitudinal change, training courses could address such needs but they would need to be more specific to LG identities and introduced to people throughout staged training. In particular, the only study investigating implicit attitudes highlighted the need for specific training, since general training on diversity topics may not promote positive implicit attitudes concerning LG people.

1.4. DISCUSSION

This review identified and analysed 18 studies, published from 1990, researching psychologists' and psychologists-in-training's attitudes toward LG populations. In particular, research focused on factors that would be potentially related to negative attitudes toward LG people, and how such attitudes would inform psychologists' behaviour with LG clients. It is worth noting that due to the limited research in this area, and with the use of many different research designs and attitude measures, the results herein are tentative.

1.4.1 Evidence on attitudes

Overall, research is somewhat inconsistent in providing a standardised view on current attitudes toward LG populations amongst psychology professionals. Most studies have focused on methods and literature that explored explicit attitudes, as opposed to implicit attitudes, which can be influenced by conformity, social desirability, and other socio-political biases prevalent in many healthcare professions. Most studies have explored attitudes to LG people and not specifically to LG clients. Studies that explored attitudes to clients used fictitious clinical vignettes, often pathologising the client's sexual orientation with mental health needs. Consequently, studies herein were evaluated as to discern the current trends in attitudes without relying on participants' self-reported data.

On the one hand, research on explicit attitudes appears to elicit several trends of positive attitudes amongst psychologists and psychologists-in-training, like a directional movement towards inclusion of, and positive contact with, LG people. This has perhaps been achieved through socialisation and cultural shifts, which may include greater positive exposure of LG people in the media and the use of positive LG symbols and role models. On the other hand, observable data revealed a prevalence of negative attitudes through ambivalent behaviours and expressions of social distance towards LG people. In particular evidence suggests that negative attitudes may be linked to the following areas: gender, religiosity, socialisation, training, and education. This may raise further questions on whether

self-reported attitudes are indeed shifting positively, or whether people are reporting such shifts due to changes in anti-discrimination legislation, which may then lead to greater gaps between implicit and explicit attitudes thus leading to cognitive dissonance and ambivalent behaviours towards LG people.

1.4.2 Gender, sexual orientation and negative attitudes

Gender was the most researched variable in all studies presented in this review, and the most representative for negative attitudes toward LG people. Studies (e.g. Clarke, 2010; Rock et al., 2010; O'Brien, 2003; Bowers et al., 2005; Blount, 2002; Anhalt et al., 2003; Korfhage, 2006; Kilgore et al., 2005; Jones, 2000; Wolf, 2009) revealed that male participants tend to have significantly more negative attitudes toward LG people, to gay men in particular, and their attitudes tend to be more negative than those of female participants. These preliminary findings are supportive of previous research on gender and attitudes concerning LG people (i.e. Herek, 2009; Daly, 1990). For instance, Anhalt and colleagues (2003) found that male psychologists' scores for the gay men subscale were statistically significantly ($p < .05$) more negative than in the lesbian subscale. Similarly, Blount (2002) revealed that gay men attracted significantly ($p < .01$) more negativity by male participants than lesbians. Jones (2000) also revealed that males significantly ($p < .01$) scored higher in fear, discomfort and guilt towards gay men than females did and much more than towards lesbians. Wolf (2009) also demonstrated that their male sample of psychologists scored higher on 'hate' towards LG people and were less likely to grant this group access to '*civil rights*' (i.e. marriage, family, health insurance).

When translating these attitude scores to objective outcomes and clinical practice, several studies revealed that male psychologists would: show less concern for gay clients when their LG attitude score was more negative (Clarke, 2010), consider LG clients riskier and more likely '*to harm other people*' (Bowers et al., 2005), propose more controlling interventions with gay clients (O'Brien, 2003), be less willing to work with gay clients in therapy (Barrett et al., 2002), regard LG identity as more pathological, and support the use of

therapy to change a client's sexual orientation (Kilgore et al., 2005). This underlying belief system about gay men was explored by Bowers et al. (2005) on how male participants significantly ($p < .001$) believed that LG clients would become '*suicidal during therapy*' and were more responsible for their psychological problems; thus eliciting a higher level of potential fear and discomfort when working with gay men presenting psychological distress ($p < .001$, in Jones, 2000). This view can potentially lead to pathologising clients based on perceived identity and cultural differences (Butler, 2010) and to poorer prognoses and therapeutic outcomes, which may prolong psychological distress (Meyer, 2003) and may trigger abusive practices (Stevenson, 2010; Shelton & Delgado-Romero, 2011).

Wolf (2009) found a significant relationship between scores in '*hate'* towards LG people, *'religious conflict'* and expectations on '*gender roles'* in their sample of male psychologists, which could also provide further insight into these gender differences in attitudes. As such, people with conservative gender roles will generally score more negatively in attitudes to LG people. The suggestion is that people will rate more negatively those in the same gender that break traditional social norms belonging to that gender (Denman, 2004). As such, men expect other men, and are themselves expected by society, to act in ways that represent male gender (Korfhage, 2006); often gay men, even if this is a misrepresentation, are stereotyped in the media and social narratives as perverted, mentally ill, effeminate, over-sensitive, camp, and carriers/spreaders of sexually-transmitted diseases (Butler, 2010).

1.4.3 Religiosity, cultural sensitivity and attitudes

Emerging from the previous theme, five studies found evidence for the effects of religiosity and cultural sensitivity on attitudes toward LG people. Clarke (2010) demonstrated that psychologists who were more culturally sensitive held more optimistic prognoses for clients, but also that the less culturally sensitive people had higher *'religious conflict'* and '*hate'* toward LG people (Annesley et al. 1995). Scher (2009) also found a significant interaction between higher *'religious conflict'* and '*hate'* scores. Wolf (2009)

demonstrated that higher *'religious conflict'* and higher *'hate'* to LG people were more prevalent amongst more conservative views on gender roles, which supports Korfhage's (2006) evidence that gender role expectations lead to negative views of people who break those norms.

These findings potentially link '*gender*' and '*cultural sensitivity'* aspects as related with negative attitudes toward LG people (Keiller, 2010; Stotzer, 2008). Worthington et al. (2005) suggest that LG identities are still perceived as deviations from a socially constructed norm, thus attracting more controversy and social negativity from people who are culturally rigid and less likely to accept changes in traditional roles. As such, cultural rigidity is a safeguard during transitions in traditional values and beliefs, and LG people are often represented as the epitome of change (Cardoso, 2010). Change can be seen as a contradiction to traditions and norms, thus increasing uncertainty, anxiety and social distance to LG people (Gentry, 1986). However, Gelso et al. (1995) identified that participants with greater anxiety management skills, greater clinical experience and greater integration into their work were less anxious when interacting with lesbian clients ($p < .05$). Working from a diverse cultural stance can increase psychologists' personal resources and affective resilience. It is likely that socialisation with LG people, either at a professional or personal level can increase resilience in working with diversity topics.

1.4.4 Social contact with LG people and homophobia

The previous theme suggested that greater levels of dissimilarity in people can produce greater repulsion and hate. Such dissimilarity is often assumed to be more prevalent between out-group affiliations rather than in-group (Turner & Reynolds, 2002; Chen & Kenrick, 2002). Often the literature suggests that socialisation to LG people increases positive attitudes (Blumenfeld, 1992; Davies, 2012) and is likely to lessen out-group prejudice (Herek, 1988; Brown, Vivian & Hewstone, 1999). Some of the studies reviewed herein collected such vital information (e.g. Wolf, 2009; Barrett et al., 2002; Boysen et al., 2008; Annesley et al., 1995; Anhalt et al., 2003; Rock et al., 2010). In particular, most

studies found that psychologists who had at least one LG friend, or had worked with at least one LG client, demonstrated higher positive attitudes and acceptance of LG identities (Wolf, 2009), thus scoring higher in measures of *'skills'* and '*competence'* in working with LG people (Boysen et al., 2008; Rock et al., 2010). These findings could potentially lead to the socialisation argument found by Herek (1988), whereby prior contact with LG people positively predicts better attitudes.

On the other hand, it could be that people with more positive attitudes seek more interpersonal experiences with LG people, thus compensating for the impact of other factors on attitudes, like gender, age, and education (Overby & Barth, 2002). Interestingly, more female psychologists than males had more contact with LG people, and those with more social contact also scored lower on the '*hate'* and *'religious conflict'* subscales than those without any contact (Wolf, 2009). Both Anhalt et al. (1995) and Wolf (2009) evidenced that higher religiosity or religious conflict can interfere with initiating socialisation with LG people, but these constructs could also be interpreted in terms of righteousness and beliefs in regards to LG people breaking many of the expected social norms. Nonetheless, often these cognitive distortions about LG identity are fuelled by lack of evidence and lower levels of education. So, there are grounds to explore if training and education can provide any insight into attitudes and homophobia, as previously suggested (Shaw, 2010), or whether positive attitudes may lead to more social contact with and training on LG identities.

1.4.5 Education, training and homophobia

Due to increased recognition of the psychosocial effects of discriminatory practice on LG people, and on the presumed lower levels of competence that psychologists have in working with these populations, training on LG topics (or more commonly known as affirmative training) is being promoted by professional and governmental guidelines as a core model for professional and personal development and for ethically competent practice, irrespective of setting and therapeutic model (e.g. Department of Health [DoH], 2006; APA, 1991, 2012; British Psychological Society [BPS], 2012). In particular, UK psychologists and

psychotherapists are expected and urged to revise their practice, and to strengthen their affirmative practice with clients belonging to sexual diversities (Davies & Neal, 1996, 2000; Neal & Davies, 2000; Moon, 2008; Butler, O'Donovan & Shaw, 2010; Richards & Barker, 2013). From the research reviewed herein, three major subthemes emerged: 'level of education', 'specific training in LG topics', and 'usefulness of LG training'. Due to prevalence of low competency, knowledge and clinical skills in working with LG people, some of the studies focused on finding evidence on the usefulness of training to shift attitudes and knowledge (Rock et al., 2010; Wolf, 2009; Fell et al., 2008; Boysen et al., 2008; Scher, 2009).

Level of education

Level of education seems to be an important feature in this LG attitudinal research. A comparative analysis across three studies that used the ATLG (Anhalt et al., 2003, Blount, 2002; Korfhage, 2006) revealed that licensed psychologists scored more positively in their attitudes towards LG people than psychologists-in-training. Using the MATHS, Jones (2000) found that undergraduates scored as being significantly more homophobic than licensed psychologists, in their '*thinking, feelings and behaviours'* towards LG people. Such evidence corroborates findings in Rock et al.'s (2010) study that level of education, i.e. doctoral level as opposed to bachelor's degree, significantly ($p < .05$) predicts lower homophobia scores and higher levels of understanding on the impact of 'heterosexism' and discrimination in clinical practice. Wolf (2009) also found that licensed psychologists had significantly more knowledge of LG history and self-reported competency, than psychologists-in-training. This shift in attitudes also seems evident across studies using the DAS-LG, whereby licensed psychologists scored more positively (O'Brien, 2003) than psychologists-in-training (Gelso et al., 1995) and undergraduates (Daly, 1990). Furthermore, Jordan et al. (1995) found that psychologists trained after 1978 (five years after declassification of homosexuality from DSM-II) were more accepting of LG people than psychologists who trained prior to 1970; this positive shift was maintained in a 10-year follow-up study (Kilgore et al., 2005).

Specific training in LG topics

Overall, it seems that on average most participants (i.e. in Finkel et al., 2003; Rock et al., 2010; Anhalt et al., 2003) had either limited or no exposure to LG training prior to starting their psychology qualification. Also, during their postgraduate psychology course not many hours of training, clinical work or supervision had been spent in addressing sexual orientation topics (Anhlat et al., 2003, Annesley et al., 1995) and this was not a clinical priority in some cases (Anhalt et al., 2003). Psychologists-in-training often identified a need for more formalised teaching in LG identities during training. Interestingly, and reverting back to the '*gender'* variable, Kilgore et al. (2005) also found that male psychologists were significantly ($p \leq .05$) less likely to have received formal LG training when compared to females. Similarly, heterosexual people were significantly ($p \leq .01$) less likely to have received such training when compared to LG participants, but these could be due to perceptions of LG training or seeing themselves associated with it. Nonetheless, Rock et al. (2010) suggests that lower LG social contact and lower training levels lead to feelings of low competency in working with this population. This suggests lower levels of comfort with LG people and lower knowledge on how to address sexuality topics in therapy, thus predicting '*homophobic'* presentations, i.e. avoidance, anxiety and incongruence in sessions, which may be due to the effects of cognitive dissonance. These suggestions are backed up by Fell et al. (2008) who found that despite higher knowledge of LG identities, the majority of psychologists-in-training failed to identify discriminatory practice in real clinical psychology case vignettes and session transcripts. This suggests that theoretical and practical skills may be incompatible in many cases, and people require further practical training.

Usefulness of LG training

Some studies (Scher, 2009; Fell et al., 2008; Finkel et al., 2003; Boysen et al., 2008; Rock et al., 2010) attempted to replicate training experiences addressing psychologists' lower competency, attitudes, knowledge and clinical skills with LG people, by exposing their sample of participants to LG training packages through pretest-posttest designs. Despite the

potential pros and cons of the training packages used, as most were non-standardised and created in-house, these potentially covered many LG topics necessary to address needs in therapy, and in particular to promote inclusive clinical practice. Findings were more positive for studies evaluating conscious and explicit changes. In particular, Scher (2009) found a statistically significant ($p \leq .03$) increase in levels of knowledge, attitudes towards civil rights of LG people, and 'internalised affirmativeness', while having lower intrapersonal conflict with LG identities. Fell et al. (2008) also found that knowledge scores about LG behaviours, myths, stereotypes, rights and legal protections significantly ($p < .001$) increased after training, together with levels of self-rated cultural competency ($p < .05$), and perceived clinical skills with LG people ($p < .01$). These findings are also comparable to Boysen et al. (2008) on the increase of cultural competency with training addressing such needs (Rock et al., 2010) but only when people had time to apply learning into practice ($p < .01$) (Boysen et al., 2008). This potentially corroborates that further training, education and clinical application of learning can improve attitudes and behaviour. However, as studies did not use control groups and blind randomisation, findings may not reliably attribute any significant changes to the quality of the training but perhaps to other factors, like socialisation, compliance, or reporting biases.

Furthermore, reports on levels of attitude may face the critique on current attitudinal research designs, since self-reported attitude scales often address conscious levels of bias which are bound to awareness and social desirability, and results become less valid when researchers do not include other objective measures for behaviours and affect to LG people. Research may have positively addressed some of the most prominent training needs for psychologists, in regards to knowledge and awareness. Nonetheless, some studies (i.e. Fell et al., 2008; Finkell et al., 2003, Rock et al., 2010) did not find any statistically significant changes in attitude levels from pre- to post-training on LG topics, which supports a previous systematic review by Tucker et al. (2006) on the usefulness of training to address attitudes towards LG people. Boysen et al. (2008) also found that training addressing cultural clinical

competence, knowledge and awareness did not elicit significant change on implicit attitudes toward LG people but did change attitudes toward BME groups. Despite evidence that higher level of education can have a positive impact on attitudes toward LG topics, the above findings suggest the need to develop specific training addressing clinical skills and competence to improve psychologists' communication and behaviour towards LG people.

1.4.6 Review limitations

There were some conceptual problems identified in the literature that can potentially bias results from the outset. In all studies there was a lack of working definitions for concepts such as '*lesbian'* and *'gay man'*. Davies (2012) discusses how people's cultures, sub-cultures and personal experiences, influence social perceptions of LG identities, even in LG people. Researchers in the studies reviewed often presumed that participants understood the concepts. Providing a definition for the purpose of research would have been invaluable to orientate participants to the researcher's own definition of LG identities, thus increasing the validity of findings. Similarly, and complementing findings around expectations on traditional social roles, studies could have explored specific features of LG identity that are seen as breaking gender role traditions and norms, perhaps single or 'stereotypical' gay men or lesbians are seen as more promiscuous or breaking more gender/social norms than those that are in monogamous or stable relationships, and engendering traditional social roles in their daily living, through work, family life and leisure activities.

Also, self-rating explicit attitude measures surged over the years and were taken at *'face value'* as evidence for prevalence of attitudes amongst psychologists, without acknowledging cultural and legal changes/responsibilities expected in the profession. These measures were varied and often adapted to studies, like adding/removing items without appropriate reliability analysis, including one study that altered the tool against its authors' advice (Scher, 2009). There were very limited suggestions as to potential influences of social desirability responses in explicit attitudes. These are potential confounds for the studied

populations, since 'psychology as a profession' is expected to promote psychological well-being and ethical practice and not be associated with discrimination towards any target population or group. There was some attempt by a few researchers to include objective measures of outcome into their studies, but such approaches were also inconsistent and controversial, as they remained subjective and self-reported too. There was only one attempt to include an implicit measure of attitudes into the equation.

Furthermore, designs varied significantly and some studies were inconsistent in reporting their data and results. It was difficult to segregate data by professional group and by other demographic characteristics. Predictability of attitudes was also based on common findings and not on statistical data. Most studies identified were carried out in the USA, and some only recruited heterosexual and white psychologists, while eliminating responses from non-heterosexual and non-white samples (e.g. Clarke, 2010), and others focused on single-gender samples (Anhalt et al., 2003; Boysen et al., 2008; Fell et al., 2008). Also, most studies did not account for religious affiliation, personal differences in upbringing and other cultural factors despite emerging evidence that religiosity can have a negative impact on attitudes toward LG people.

1.4.7 Recommendations for clinical practice and future research

Despite lack of implicit research, some of the studies in this review (i.e. Gelso et al., 1995; Jones, 2000; Barrett et al., 2002; Finkel et al., 2003; Scher, 2009; Fell et al., 2008) attempted to correlate participants' behavioural responses with their attitude scores, thus suggesting that clinical malpractice may still occur even when positive explicit attitudes towards LG people are present. In particular gender, age, levels of education and exposure to LG training seems to be related to attitudes, thus suggesting that specific attention and supervision should be provided to clinicians with the individual characteristics that may lead them to more negative attitudes towards specific populations. However, these findings are still exploratory since data were varied through a divergence of methods and designs.

Boysen et al. (2008) was the only study that attempted to include an implicit measure into their study, but this was also limited as they used a paper-and-pen version that was manually timed thus increasing likelihood for error. Nonetheless, Boysen reported discrepancy between implicit and explicit results, potentially leading to clients' unmet needs, cultural invisibility, disempowerment of LG clients in therapy, and poorer therapeutic outcomes. More research is needed in this area of implicit attitudes, in particular with samples of licensed psychologists or psychologists-in-training, whilst investigating the relationship between personal characteristics, attitudes and behaviours with LG clients.

1.5. CONCLUSION

It appears that within the current literature there is consensus that psychologists' explicit attitudes have positively shifted over the years, despite the many different designs used to investigate such phenomenon. Implicit attitudes have been investigated less frequently, but other objective measures suggest that psychologists may encounter a greater degree of discomfort, prejudice and negativity with LG people or clients. Clearly, we need an integration of implicit and explicit measures into research, but also observable assessment tools that can quantify negative behaviours toward LG people. Males, more than females, tend to have less favourable attitudes toward LG populations and in particular toward gay men, which may be explained by cultural rigidity and expectations of traditional gender and social roles for both men and women, and how LG people are seen as '*deviating'* from these. These findings corroborate other attitudinal research (i.e. Keiller, 2010; Stotzer, 2008) whereby participants' demographic characteristics seem to be related with negative attitudes toward LG people. Despite the scarcity and variability of studies exploring mechanisms of attitudinal change it seems that higher levels of education and training may help to direct psychologists to a more positive outlook on LG identities and needs.

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CHAPTER 2

Empirical Paper[3]

Attitudes and clinical communication of clinical psychologists-in-training towards simulated 'gay clients': a pilot study

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[3] This article will be submitted for publication to the *Journal of Consulting and Clinical Psychology (see Appendix 2.A)*

ABSTRACT

***Objective*:** Two related longitudinal studies recruited doctoral-level clinical psychologists-in-training based in the United Kingdom, to investigate communication towards simulated gay clients with mental health needs, whilst accounting for individual characteristics, like attachment style and attitudes. ***Method*:** Study 1 (n=22) randomly allocated participants to two group conditions: interviewing a simulated gay client presenting with either anxiety or with depression. Study 2 (n=96) collected self-reported online data to compare findings with study 1. Self-report data were collected using the Attitude towards Lesbians and Gay men (ATLG), the Social Distance Scale, and the 'Experiences in Close Relationships-Short Form' (ECR-S). Outcome data included the Implicit Association Test (IAT), the Liverpool Undergraduate Communication Assessment Scale (LUCAS), the Verona Coding Definition of Emotional Sequences (VR-CoDES) and the Session Rating Scale (SRS). ***Results*:** Independent samples t-tests demonstrated that the sample of participants in study 1 was similar to the sample from study 2 in all demographic and individual characteristics. The IAT, the ATLG, and the ECR-S scores were consistent from time 1 to time 2. IAT scores were unrelated to ATLG scores. SRS scores were related to IAT and VR-CoDES ($p < .05$). Participants with higher ECR-S avoidance showed less satisfactory performance with their 'gay client' in session and had lower VR-CoDES, thus eliciting fewer opportunities for communication. Group condition elicited significant results, with participants in the depression group scoring lower in the VR-CoDES and SRS measures ($p < .05$). Psychologists' clinical communication (VR-CoDES) and client satisfaction scores (SRS) did not improve after six months of training. ***Conclusions*:** Improving communication skills with gay clients with depression could be the focus for future research and clinical training, since previous studies have proposed that working with this client group is repeatedly difficult.

Keywords and major descriptors: Lesbian and Gay; Attitudes (implicit and explicit); Social Distance; Clinical communication; VR-CoDES; Clinical psychologists

2.1. INTRODUCTION

Clinical psychologists in the United Kingdom (UK) play a pivotal role in managing and addressing extreme distress and communication needs in interpersonal relationships (Roach, 2009), through direct and indirect clinical work, consultancy and training, supervision and research, and academia-related activities (British Psychological Society [BPS], 2006). Concurrently, psychologists' attitudes to clients' diversity are particularly relevant for clinical communication, due to the recognition of the potential bio-psycho-social impact that discrimination and prejudice can have on people belonging to minority groups (Meyer, 2003; Davies, 2012). Vulnerable clients and minority groups may often be at the centre of unintended discrimination, via ambivalent behaviours, when professionals' attitudes about the clients' identity are negative or biased. Nevertheless, communication and attitudinal research are a recent emerging phenomena amongst healthcare professionals (Steffens, 2005; Steffens & Jonas, 2010), but remain scarce, even if central, to clinical psychology practice. These issues will be explored in this article.

2.1.1. Clinical psychology and communication skills

Clinical communication is a theoretical foundation for all healthcare professionals, and a core competency in clinical psychology training and/or practice (BPS, 2006), to ensure collaborative care planning, informed decision-making with clients and efficacious outcomes (Salmon & Young, 2005; 2009). Empirically, there are many factors, both external and internal, that can influence the quality of communication between clinicians and clients, but these are largely unknown in the field of clinical psychology, so most fields of enquiry remain theoretical, drawn from parallel research. On the one hand, research with medical students suggests that clinicians' intrapersonal characteristics, such as attachment styles, attitudes and cognitive biases, play a vital role in interpersonal dynamics with clients, whereby transference and countertransference processes can divert therapeutic communication from both clients and clinicians (Ciechanowski et al., 2002; Givertz &

Safford, 2011; Salmon et al., 2008; Wright, Holcombe & Salmon, 2004; Tan, Zimmermann & Rodin, 2005). Conversely, clients in emotional distress and/or low mood often seem more difficult to engage, at times leaving the most experienced clinicians in ambivalent attitudes and not knowing how to manage distressing situations (Annen, Roser & Brune, 2012; Geerts, van Os, Ormel & Bouhuys, 2006; Gonzalez, Siegel, Alvaro & O'Brien, 2013; Grimsbø, Ruland & Finset, 2012; Morse, Edwardsen & Gordon, 2008). At present, we do not know how psychologists-in-training's attachment styles, social distance and attitudes may affect their communication with clients, so further research is needed in this area.

In the UK, while medical students receive formal training and assessment in clinical communication, clinical psychologists do not receive such training and/or level of evaluation. There is an assumption that clinical psychology training incorporates these skills as part of the several aspects of clinical skills but most of the evidence is drawn out from academic literature and anecdotal reflections from clinical psychologists themselves. As of yet we do not know the extent of the clinical communication skills of clinical psychologists-in-training when interacting with clients in emotional distress. Despite this, there is an assumption that clinical psychologists-in-training as a group are good communicators and are homogenous in relation to their attachment styles, social distance and attitudes, due to the standardised approach that most UK courses have in assessing candidates for clinical psychology doctorates. However, this assumption has never been explored before.

2.1.2. Attachment styles, attitudes and clinical communication

The interactions between psychologists' attachment styles and attitudes are mostly unknown, but the consequences of these on behaviour are theoretically observable. Previous research has suggested that people presenting higher attachment anxiety and/or avoidance would present higher negativity and lowered empathy towards out-group people, compared to those with lower attachment anxiety and/or avoidance (i.e. Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007; Hofstra, van Oudenhoven, & Buunk, 2005). Attachment styles are

likely to inform behaviour (Lac, Crano, Berger & Alvaro, 2013; Wu & Parker, 2012). As such, while people with higher anxiety attachment style would use strategies to prevent rejection from others (or seeking proximity to others), individuals with higher avoidance attachment would increase effort to avoid interpersonal contact (or seeking distance from others) (Boag, 2010). These attachment avoidance and anxiety patterns are then likely to increase when people have to interact with those belonging to minority or diversity groups, whilst holding negative or ambivalent attitudes towards the latter.

Attachment styles are likely to remain stable over time, even if negative attitudes may shift with training and increased awareness (e.g. Hamilton, 2000; Hazan & Shaver, 1987; Iwaniec & Sneddon, 2001; Sroufe, Egeland, & Kreutzer, 1990; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000) but such stability has been debated (i.e. Lewis, Feiring, & Rosenthal, 2000; Weinfield, Sroufe, & Egeland, 2000). These findings are clearly problematic for clinical practice and in particular to clinical psychologists-in-training, since they seem quite deterministic that attachment styles will 'remain for life'. One can only imagine the quality of communication that a psychologist with an avoidant attachment style will hold with a client belonging to a minority group with pervasive negative social connotations.

Research with healthcare professionals has demonstrated that individuals' attachment styles and attitudes towards specific client populations can greatly determine clinical behaviour and outcome. For instance, research on attachment styles and communication has demonstrated that practitioners with secure attachment styles would be better at handling clients' distress in consultations (Salmon et al., 2008; Tan et al., 2005). A recent study by Hick (2009) demonstrated how medical students (n=169) with more secure attachment styles performed more efficiently in Objective Structured Clinical Examinations (OSCEs) when interviewing emotionally distressed simulated patients. Students with a secure attachment style were more able to handle clients' negative affect by exploring their feelings and thoughts in more detail. They also used more direct eye contact and positive

non-verbal behaviours, thus being warm and empathetic towards clients' needs. Another recent study by Jakub (2012) demonstrated how medical students' (*n*=289) avoidant attachment style and negative attitudes towards mental illness were positively related to levels of social distance to mental health clients. Research is thus suggesting that at early stages of clinical training, practitioners' personal characteristics can influence the quality of communication towards clients, which may be addressed through specific communication training to address any shortfalls (Roach, 2009).

The conceptualisation of attitudes has been explored by Greenwald and Banaji (1995), in particular around the divide between implicit attitudes and explicit attitudes (Rydell & McConnell, 2006), and the effects of cognitive dissonance on behaviour (Briñol, Petty & Wheeler, 2006; Festinger, 1957; Greenwald et al., 2009; Nosek & Banaji, 2009; Rydell, McConnell & Mackie, 2008; Spencer & Myers, 2006). Cognitive dissonance is problematic as it makes people's behaviour harder to predict, thus impacting on relationships and social structures (Gawronski & Strack, 2004; 2012). This is particularly relevant for healthcare practitioners, including psychologists, who may hold negative implicit attitudes towards particular groups or people, thus potentially leading to ambivalent behaviours and detrimental effects on therapeutic relationships and client well-being (Hook & Andrews, 2005). Implicit attitudes are more likely to influence behaviour than explicit attitudes (Kihlstrom, 1987), but research in this area has only advanced with the advent of reliable computer software packages measuring reaction times, like the Implicit Association Test (IAT; Greenwald, Poehlman, Uhlmann & Banaji, 2009). Nonetheless, as identified by several authors (i.e. Boysen, 2009; Nosek & Banaji, 2009; Ranganath & Nosek, 2007), previous research had attempted to measure the relationship between participants' observable behaviour and self-reported attitudes towards specific minority groups, like lesbians and gay men (LG), without the use of the IAT.

2.1.3 Psychologists and behavioural prejudice towards LG people

Clinical psychologists are as open to attitudinal biases as other people and this can have detrimental effects on therapeutic relationships and communication with clients (Ritter & Terndrup, 2002), and on how clients trust and relate to clinicians (Dardick & Grady, 1980; Hook & Andrews, 2005). However, research into psychologists' behavioural prejudice toward LG sexualities has remained under-represented, findings have been inconsistent, and the divide between explicit and implicit attitudes has not been consistently explored. A recent systematic review (Boysen, 2009) into counsellors' attitudes towards LG and Black and Minority Ethnic (BME) people identified 20 studies that reported a clear divide between implicit and explicit attitudes. Findings revealed that even counsellors with self-reported positive attitudes would still hold negative implicit attitudes towards LG and BME people, thus creating grounds for potential discriminatory practice. Most other studies involving licensed psychologists or psychologists-in-training have only explored self-reported attitudes toward LG people (e.g. Anhalt, Morris, Scotti & Cohen, 2003; Korfhage, 2006; Rock, Carlson & McGeorge, 2010; Scher, 2009; Blount, 2002; Bowers & Bieschke, 2005; Clarke, 2010; Kilgore, Sideman, Amin, Baca, & Bohanske, 2005; Wolf, 2009; Mohr, Weiner, Chopp, & Wong, 2009; Jones, 2000). Only one study (Boysen & Vogel, 2008) investigated implicit attitudes toward LG people alongside explicit measures, thus providing more evidence on the existence of diverging explicit and implicit attitudes.

Overall, research on psychologists and psychologists-in-training's attitudes towards LG people appears to elicit trends of positive self-reported attitudes, whereas observational evidence reveals ambivalent behaviours (Finkel Storaasli, Bandele & Schaefer, 2003; O'Brien, 2003; Scher, 2009), high anxiety and avoidance (Gelso, Fassinger, Gomez & Latts, 1995), and expressions of social distance towards hypothetical LG client with mental health needs (Barrett & McWhirter, 2002; Jones, 2000). Studies also revealed that psychologists would: a) show less concern for gay clients when their LG attitude score was more negative (Clarke, 2010); b) consider LG clients riskier and more likely 'to harm other people'

(Bowers et al., 2005); c) propose more controlling interventions with gay clients (O'Brien, 2003); d) be less willing to work with gay clients in therapy (Barrett et al., 2002); e) regard LG identity as more pathological; and f) support the use of therapy to change a client's sexual orientation (Kilgore et al., 2005). Graham (2009) noted that when clinicians have negative attitudes towards LG clients these can also result in the client perceiving the therapist as non-credible and unsafe, thus hindering the therapeutic process. Further research is needed in this area to identify relationships between psychologists' individual characteristics, attitudes, and behaviour with clients, and consequently clients' satisfaction.

2.2. THE CURRENT RESEARCH

2.2.1 Rationale and aims

This study is mainly exploratory, as most of the emergent research in the area of attitudes and communication with LG populations has originated from parallel research with general population and other healthcare professionals, from psychologists' self-reported responses, and from hypothetical assumptions of behaviour (measured against clinical vignettes) and not with real life client-therapist interactions. Furthermore, psychological research to date has mostly overlooked individual characteristics of samples, like attachment styles, social distance towards LG people, clinical and training experience in LG topics, personal contact with LG populations. Similarly, most studies have not explored the relationship between implicit/explicit attitudes, clinical communication with LG clients, or LG clients' satisfaction after therapy, or their stability across time. In particular, such research within a UK context is very scarce.

This study will address these gaps by focusing upon clinical psychologists-in-training individual characteristics, implicit/explicit attitudes towards LG people, and their clinical interactions with simulated 'gay clients' experiencing common mental health issues.

2.2.2 Research Questions (RQ) and Experimental Hypotheses (H)

The research aimed at answering the following questions and hypotheses:

RQ1 – How similar are psychologists-in-training from a single university cohort (study 1) and from a UK national sample (study 2) in their attachment styles, social distance, and explicit/implicit attitudes?

H1 – Attachment styles, social distance, and explicit/implicit attitudes will be stable across time and across samples.

H2 – There will be a positive correlation between social distance and explicit attitudes scores, and a negative correlation between implicit attitudes with both explicit attitudes and social distance scores.

H3 – There will be a positive correlation between lower anxiety and/or avoidant attachment styles, positive explicit/implicit attitudes and lower social distance.

H4 – There will be a positive correlation between effective clinical communication, client satisfaction, lower attachment avoidance and/or anxiety styles, and implicit attitudes.

RQ2 – Do measures of clinical communication change across time?

2.3. METHOD

2.3.1 Research design

There were two related studies (Study 1 and Study 2) with two time points each (Time 1 and Time 2). Each time point was separated by six months of clinical adult mental health placement (internship) and relevant academic work.

Study 1 used a within/between-subjects design with two group conditions: participants interviewing a simulated 'gay client' (actor) presenting with either a) anxiety or b) depression. Participants were randomly and blindly allocated to condition at both time points. Self-reported and observational measures were also completed. Data from this study addressed all research questions and hypotheses.

Study 2 used a within-subjects longitudinal design as above and collected online data with no randomisation. Data from this study were used to address RQ1 and when appropriate to provide more details in regards to similarity of results with study 1 for H1 and H2.

2.3.2 Ethical approval and considerations

The research was approved by the Institutional Review Boards (IRB) (Appendix 2.B) and sponsored by the University of Liverpool. Actors were experienced professionals routinely used for other teaching, video interviewing and examination purposes, with no other affiliation with the course. The main researcher involved in data collection had no teaching or assessment responsibilities with the participants.

2.3.3 Sampling and participants

Study 1

A cohort of psychologists-in-training (n=24) completing an accredited Doctoral degree in Clinical Psychology in the UK were invited to participate in this study during their first week of training. Participants were asked to complete the online measures and were randomly allocated to one of two group conditions, whereby they would be interviewing a simulated

'gay client' presenting with either a) depression or b) anxiety. These interviews lasted 10 minutes and were video-recorded. The process was repeated after six months of training (time 2), but the allocation to group condition was not matched with allocation at time 1. This meant that some participants were likely to interview a 'client' with a different mental health problem than they did at time 1. Response rate was 92% (n=22) at time 1 and of these 21 participants repeated at least one of the measures on follow-up (4.5% attrition). See Figure 2.1 for more details.

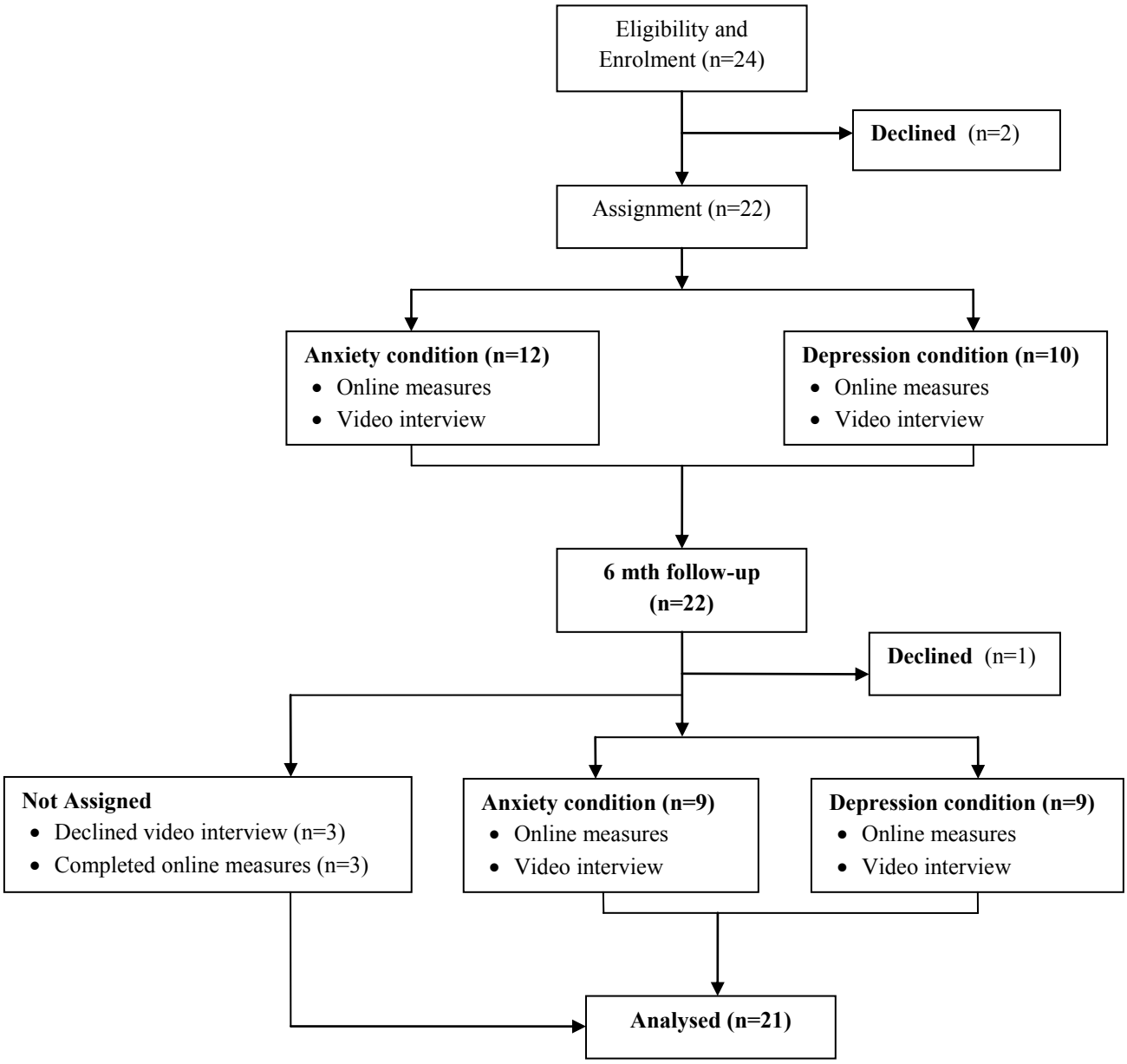

Figure 2.1 Participant flowchart for study 1

Study 2

Similar to study 1, psychologists-in-training (n=513)[4] completing an accredited Doctoral degree in Clinical Psychology across the UK were invited to participate. Potential participants were directed to the online measures via email, and this procedure was repeated at six months after training. Response rate at time 1 was 15.8% (n=81), with 56.7% attrition on follow-up (n=29). See Figure 2.2.

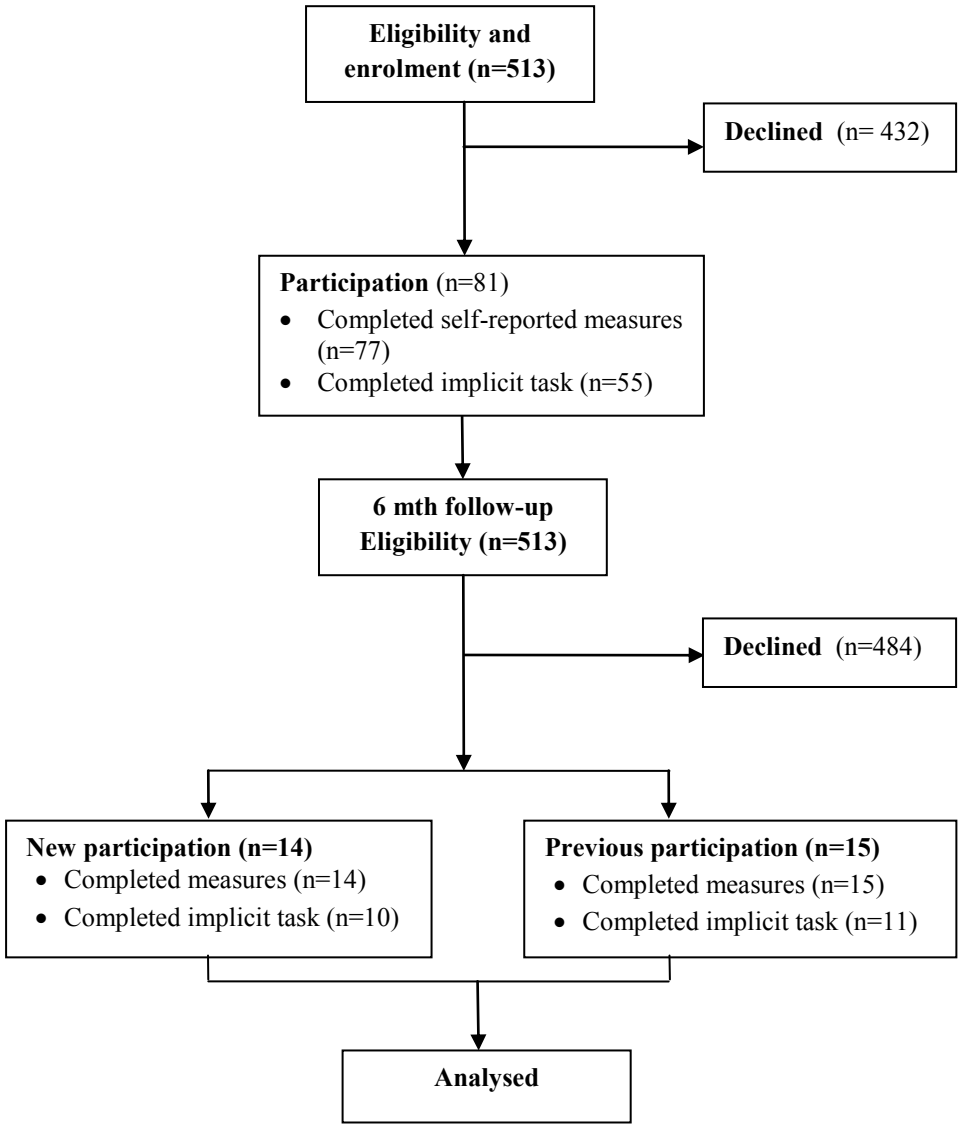

Figure 2.2 Participant flowchart for study 2

[4] This represents the total response from 24 out 30 Doctoral Clinical Psychology courses across the UK granting access to their sample of psychologists-in-training.

2.3.4 Power calculation

Power calculations were used to identify the required sample to address the proposed designs. In order to achieve a medium effect size with 80% power (to detect a relationship between variables) with $\alpha \leq .05$ significance level, the recommended sample size would be 34 people (Cohen, 1992) for each study. *A priori* population availability for Study 1 was only 24 people (an entire cohort), thus Study 2 aimed at increasing sample size by providing comparative data as to reduce the probability of Type II error and increase confidence in results (Wellington, 2007). *Post-hoc* effect sizes are also provided as alternative for main findings (Tabachnick & Fidell, 2007) as they convey more meaningfully the magnitude of the directionality and strength in findings as opposed to the conventional *p*-values (Kelley & Preacher, 2012; Yetkiner, Capraro, Zientek & Thompson, 2008).

2.3.5 Measures and instrumentation

Participants in study 1 and study 2 completed a range of self-report measures and one priming task. Video interviews from study 1 were also assessed with three observational measures. Specific alpha values for each measure and time points are provided in Appendix 2.C.

Self-report measures

Demographics (Appendix 2.D): Participants were asked to provide details on gender, age, ethnicity, sexual orientation, religion, level of education, length of clinical experience in psychology, previous clinical contact with LG clients, personal contact with LG people, and prior training in LG topics. These data would be used to identify potential confounding variables of demographical differences.

The Attitudes Toward Lesbians and Gay Men (ATLG) scale (Appendix 2.E): This tool was adapted by Herek and McLemore (2011) from Herek's (1988) 20-item ATLG. The tool is often presented with six or ten items, on a seven-point Likert-type scale ranging from

'disagree strongly' (1) to 'agree strongly' (7) and can also be presented separately as ATG (Gay Men) or ATL (Lesbians). Scoring is achieved by averaging scores for each scale ranging from 1 to 7. Higher scores represent more negative attitudes. As recommended by Professor Gregory Herek (personal communication, 28th June 2011), this research applied the shorter 6-item version since this was embedded into a larger questionnaire. Herek and McLemore (2011) reported "*α > .85 with most college student samples and α > .80 with most nonstudent adult samples*" (p. 415). For the current study alpha coefficients were α = .90 (Time 1) and α = .93 (Time 2).

Experiences in Close Relationships-Short Form (ECR-S) (Appendix 2.F)*:* Wei, Russell, Mallinckrodt and Vogel (2007) adapted the ECR-S from the Experiences in Close Relationship Scale (ECR; Brennan, Clark, & Shaver, 1998). This tool measures anxiety and avoidance attachment styles in adults. Each subscale contains six items, on a seven-point Likert-type scale ranging from 'disagree strongly' (1) to 'agree strongly' (7). Scoring is achieved by averaging responses for each scale separately, where high scores represent more anxiety or avoidance in close relationships. Wei et al. (2007) reported reliability alphas for anxiety of .78 and avoidance of .84. The measure was found to "*possess a stable factor structure and acceptable internal consistency, test-retest reliability, and construct validity*" (p.201). This tool also compares favourably to the original ECR concerning its internal consistency and psychometric soundness. The reliability values for this research were: Attachment Anxiety subscale α = .76 (Time 1) and α = .78 (Time 2), and Attachment Avoidance subscale α = .80 (Time 1) and α = .89 (Time 2).

Social Distance Scale (Appendix 2.G): Link et al. (1987) developed this tool to measure social rejection of people with mental health needs. For this project, the tool was adapted to replace the concept mental illness with the words 'homosexual person' or 'homosexual couple'. The tool is presented on a 4-point Likert-type scale ranging from

'Definitely willing' (0) to 'Definitely unwilling' (3). Item scores are added together to achieve a total social distance score (0 to 27), where higher scores represent more social distance to the target population. The original tool reports reliability values of $\alpha \geq .90$ across studies measuring social distance with patients with depression and schizophrenia (Link et al., 1987; Kanter, Rusch & Brondino, 2007; Angermeyer, Matschinger & Corrigan, 2004). Reliability alpha coefficients for the current research were $\alpha = .95$ (Time 1) and $\alpha = .98$ (Time 2).

Priming task

Implicit Association Test (IAT) sexuality (Appendix 2.H)*:* The IAT is a priming task that has been used in research for nearly two decades to detect the strength between people's mental representations of objects/concepts stored in their memory (e.g. flower vs. insect; cake vs. fruit; gay vs. straight) with "an attribute classification representing positive versus negative valence" (e.g. wonderful vs. disgusting; good vs. bad) (Sriram & Greenwald, 2009, p.283). The IAT is governed by the principles of reaction time and response latency, thus theoretically suggesting that the longer a person takes to associate an object/concept with a positive attribute, or the faster in associating negative attributed, the higher their cognitive effort and prejudice (negative attitudes) towards that same object/concept (Greenwald, McGhee & Schwartz, 1998). The aim of the IAT is to achieve an overall impression of people's implicit attitudes towards those same objects/concepts.

This study used an adapted version of the IAT sexuality (Banse, Seise & Zerbes, 2001), which measures implicit attitudes towards LG people. Participants were asked to associate images representing homosexual and heterosexual couples with positive and negative attributes, in a sequence of test trials as per general IAT guidelines (see Greenwald et al., 1998). For instance, participants would associate heterosexual concepts (images) with positive and then negative attributes (words), and then associate homosexual concepts

(images) with the same positive and negative attributes (words). These trials would be randomly presented to participants to prevent order effect.

Overall mean *d* scores can range from -2.0 to +2.0, and these are achieved by the use of a conversion syntax formula that weighs latency responses from all test trials. As such, for the purpose of this research negative scores (nearer to -2) represent slower responses and more negative attitudes towards LG images when compared to heterosexual images, while more positive responses (+2) represent faster responses towards LG images. Banse et al. (2001) have successfully demonstrated that trials of the IAT sexuality result in a strong combined internal consistency, α = .83, which is superior to consistencies reported for other priming measures up to α= .50 (Banse, 1999). Moreover, correlation between these trials was positive, *r*= .52 (*p* < .001). Greenwald, Poehlman, Uhlmann & Banaji (2009) also summarised the psychometric properties of IAT measures and concluded it displayed good internal consistency and test-retest reliability (median value of *r* = 0.56) and larger effects (*d* = 1.21). The reliability coefficients for this research were α = .83 (Time 1) and α = .78 (time 2) across both studies, and the correlation between all trials was significantly positive, *r* = .56 (*p* < .001).

Outcome and behavioural measures

Verona Coding Definition of Emotional Sequences (VR-CoDES) (Appendix 2.I): Participants' interviews with simulated clients were video-recorded and minutiously coded with VR-CoDES tool (Zimmermann et al., 2011). The VR-CoDES has been previously used and evaluated in similar studies (see Fletcher et al., 2009; Fletcher, Mazzi & Nuebling, 2011; Roach, 2009) to measure the quality of communication between clinicians and clients (Del Piccolo et al., 2009). In essence, this process evaluates the opportunity that clinicians give to clients to talk about emotions (providing space), the number of cues and concerns that clients give to clinicians, and how explicit (or non-explicit) clinicians are in exploring those same emotions (affect exploration). Scores are presented on a dimensional scale (0-100%),

whereby higher scores represent more positive attempts *'of providing space'* and/or *'of affect exploration'* for clients in session. Del Piccolo et al. (2011) reported a reliability value of .90 with an inter-rater agreement of 92.9%. Reliability values for the current study were α = .74 (Time 1) and α = .76. This study did not seek for inter-rater data at this stage.

Liverpool Undergraduate Communication Assessment Scale (LUCAS) (Appendix 2.J): This tool was developed by Huntley, Salmon, Fisher, Fletcher & Young (2012) to be used by examiners as a marking tool during OSCEs (see Kurtz, Silverman & Draper, 2005) for observable clinical communication and interactions from a clinician towards a client; for example, greeting and asking for personal details, showing interest in the client, showing empathy, or presentation and behaviour in session. In this research it was used to evaluate the video-recording as stated above. The tool contains ten quantifiable items and one qualitative item. Scoring is achieved by the summing of the ten items. Higher scores, from zero to 20, represent better communication levels. Huntley et al. (2012) reported alpha values α >.80 and inter-rater reliability of .73. Alpha values for this research were α = .67 (Time 1) and α = .65 (Time 2). This study did not collect inter-rater reliability at this stage.

Session Rating Scale (Appendix 2.K): This tool is a visual analogue instrument developed by Duncan et al. (2003) to measure clients' satisfaction and alliance post-session on therapist performance. There are four-item areas: therapeutic relationship and closeness, agreement on therapeutic goals, approach used by therapist, and overall confidence in the therapeutic process. Each item is presented on a metric line (up to 10 centimetres long). Scoring is achieved by adding each item to nearest centimetre, up to a total average possible score of 10. Overall scores below 9, or on any individual item, are regarded as problematic and in a real life situation clients are asked to comment on their scoring. For this research, 'clients' (actors) were asked to rate psychologists-in-training's performance whilst 'in role', after each 10-minute interview, but were not asked to qualitatively comment on their scoring

due to time constraints. Duncan et al. (2003) report a coefficient alpha of .88, which is comparable to other similar tools. Test-retest reliability was reported as r >.64 and similar to other tools ($p < .01$). For the current research the alpha values were $\alpha = .95$ (Time 1) and $\alpha = .81$ (Time 2).

Instrumentation and other stimuli

Professional actors: Six white British male actors of working age, aged 40+ years, were hired from a reputable and professional acting agency often used by universities/institutions for academic and clinical projects involving simulated therapy with clients, including for OSCEs. No other demographic characteristics were collected from the actors. Actors were briefed beforehand with details of the day and provided with the clinical vignettes. At the end of each video interview, actors were asked to rate the session, as if they were real clients, by using the 'session rating scale', as described above.

Clinical Vignettes (Appendix 2.L): Clinical vignettes were adapted from Reid and Wise (1995) and Bowers et al. (2005) to provide actors with background information on the 'gay client' they were asked to portrait during the video interview with participants. Participants had no access to the vignette at any time during the study. There was one vignette representing a '*client with depression*' and another portraying a '*client with anxiety*'. Both versions were reviewed by two experienced clinicians linked to this study (JR and PW) and two independent professionals not linked to this study, all experienced in working with LG populations.

2.3.6 Data preparation and analysis

Data analyses were conducted with SPSS v20.0.0.1. All data were screened for inputting errors, missing values, and data transformation processes. All variables were checked for normality of distribution, skewness, and kurtosis. Levene's test was used

throughout analyses to ensure homogeneity of variance, but these are not reported for when variances were equal and non-significant. Pearson's correlations, independent and paired samples t-tests, chi-squares, one-way ANOVA, and graphical plots were used for initial data exploration and subsequent analyses to answer the main research questions. Two-tailed analyses were used throughout this research, with a 95% confidence interval and significance levels set at $p < .05$. Significance levels <.01 are also reported as appropriate. Effect sizes are also reported in addition to significance levels due to the low sample size in study 1, as per Cohen's guidelines, e.g. trivial effect size, $d < 0.09$; small, $d = 0.1$ to 0.29; medium, $d = 0.3$ to 0.49; and large, $d > 0.5$ (Cohen, 1988, 1992).

2.4. RESULTS

2.4.1 Demographics

Table 2.1 contains details descriptive statistics for participants in study 1 and study 2. More details are provided in Appendix 2.M.

Table 2.1. Main demographic characteristics of samples for both studies

Demographic category	**Study 1** ***n*=22**	**Study 2** ***n*=96**
Gender = Female (*n*, %)	16 (72.7)	86 (89.6)
Age, in years (M, SD)	26 (3.0)	27.6 (3.8)
Ethnicity – White (*n*, %)	22 (100)	92 (95.9)
Sexual Orientation = Heterosexual (*n*, %)	19 (86.4)	88 (92.6)
Religion = None (*n*, %)	14 (70)	52 (57.5)
Education = Postgraduate (*n*, %)	14 (63.6)	62 (64)
Experience working in mental health = 2+ years (*n*, %)	17 (77.3)	83 (87.4)
Experience with LG clients = 0-6 months (*n*, %)	16 (76.1)	69 (72.6)
Training in LG topics = 0-1 hour (*n*, %)	20 (90.9)	81 (84.3)

Samples from study 1 and study 2 were largely similar in regards to gender, ethnicity, and sexual orientation. As such, the majority of participants were female, white, and heterosexual. Samples were also similar in regards to level of education, experience in working in mental health settings, experience in working with LG clients, and training in LG topics. Total average age was 27 years (range = 21-43; SD = 3.7). A t-test revealed no significant difference in age between males (M = 29.8) and females (M = 26.9), $t(17) = 1.94$, $p = .07$.

2.4.2 RQ1 – How similar are psychologists-in-training from a single university cohort (study 1) and from a UK national sample (study 2) in their attachment styles, social distance, and explicit/implicit attitudes?

Table 2.2 contains the mean values and standard deviations for the attitudes and attachment variables across studies. Further details can be found in Appendix 2.N.

Table 2.2. Means and Standard Deviations for Attitudes and Attachment data across studies

	Study 1		Study 2		Range of scores for all time points
	Time 1 N=22	Time 2 N=21	Time 1 N=77	Time 2 N=30	
IAT*	-.28 (.40)	-.16 (.43)	-.22 (.45)	-.14 (.53)	-1.13 to .72
ATLG**	1.5 (.58)	1.5 (.61)	1.7 (.76)	1.6 (1.0)	1 to 5.3
Social Distance†	1.5 (5.7)	.19 (.51)	1.3 (2.3)	1.0 (2.2)	0 to 27
Attachment anxiety	3.1 (.94)	3.1 (.96)	3.2 (1.0)	3.3 (1.2)	1 to 6.2
Attachment avoidance	1.9 (.60)	2.1 (.70)	2.1 (.90)	2.0 (.93)	1 to 4.7

Independent samples t-tests revealed that the sample of psychologists-in-training from study 1 and those from study 2 were similar, at time 1 and time 2, in regards to their attachment styles, social distance, and implicit/explicit attitudes towards LG people.

2.4.3 H1 – Attachment styles, social distance, and explicit/implicit attitudes will be stable across time and across samples.

As expected, paired samples t-tests revealed that attachment styles, social distance, implicit/explicit attitude scores did not statistically differ from time 1 to time 2 in both study 1 and study 2. However, the samples of participants repeating the measures at both time points for Study 1 (N=21) and Study 2 (N=16) are smaller than the original sample taking part at each time point separately, as presented in the above table.

2.4.4 H2 – There will be a positive correlation between social distance and explicit attitudes scores, and a negative correlation between implicit attitudes with both explicit attitudes and social distance scores.

All correlational data are presented in Table 2.3. For study 1 the relationships between social distance, implicit and explicit attitudes were all non-significant. Despite this, the relationship between social distance and explicit attitudes appears to be positive, while social distance appears negatively related with implicit attitudes. Implicit and explicit attitudes appear to be unrelated.

When comparing these results with data from study 2, the relationship between implicit attitudes (IAT) and explicit attitudes (ATLG) becomes negative but still non-significant (n=55, r = -.25, p = .06). Furthermore, the positive relationship between social distance and explicit attitudes (ATLG) becomes significant (n=77, r = .40, p < .01). Similarly, the negative relationship between implicit attitudes and social distance becomes significant in study 2 (n=55, r = -.44, p < .01). For study 1 and study 2 the above relationships produced medium effect sizes thus tentatively suggesting that greater negative implicit attitudes towards LG people may lead to greater desire to seek interpersonal distance from LG people despite self-reported positive attitudes.

Table 2.3. Correlations and significance values between attitudes, attachment styles, communication and client satisfaction ($N = 22$)

Variable	1	2	3	4	5	6	7	8	9
1. Implicit Attitudes	-								
2. Social Distance Scale	-.25 ($p = .30$)								
3. Attitudes toward lesbians and gay men	.09 ($p = .70$)	.29 ($p = .21$)							
4. Attachment avoidance	.28 ($p = .21$)	-.31 ($p = .16$)	.31 ($p = .16$)						
5. Attachment anxiety	-.11 ($p = .63$)	.31($p = .17$)	.14 ($p = .53$)	.07 ($p = .76$)					
6. LUCAS communication	.07 ($p = .75$)	.18 ($p = .41$)	.09 ($p = .68$)	.05 ($p = .82$)	.09 ($p = .71$)				
7. VR-CoDES provide space	-.09 ($p = .69$)	.13 ($p = .58$)	.32 ($p = .14$)	.08 ($p = .73$)	.21 ($p = .34$)	-.15 ($p = .51$)			
8. VR-CoDES Affect exploration	-.33 ($p = .13$)	.19 ($p = .39$)	-.06 ($p = .79$)	-.35 ($p = .11$)	-.01 ($p = .96$)	-.22 ($p = .36$)	.41 ($p = .06$)		
9. Session rating scale	-.43* ($p = .05$)	.16 ($p = .47$)	-.10 ($p = .64$)	-.11 ($p = .62$)	.01 ($p = .97$)	-.23 ($p = .30$)	.53* ($p = .01$)	.30 ($p = .18$)	-

*. Correlation is significant at the 0.05 level (2-tailed).

2.4.5 H3 – There will be a positive correlation between lower anxiety and/or avoidant attachment styles, positive explicit/implicit attitudes and lower social distance.

For study 1 the relationships between attachment (ECR-S; attachment avoidance and anxiety), implicit attitudes, social distance and explicit attitudes were all non-significant. These results were similar for study 2. Effects sizes were small to medium. When comparing data from study 1 and study 2, the most consistent findings suggest that positive implicit attitudes towards LG people increases with higher attachment avoidance (r = .29, n = 11, p = .39) but decreases with higher attachment anxiety styles (r = -.23, p = .09).

On the other hand, social distance appears to increase with higher levels of anxiety (r = .28, p = .31) but to decrease with higher levels of avoidance (r = -.07, p = .80). Negative explicit attitudes appear to increase with both higher attachment avoidance (r = .22, p = .06) and anxiety styles (r = .13, p = .65).

2.4.6 H4 – There will be a positive correlation between effective clinical communication, client satisfaction, lower attachment avoidance and/or anxiety styles, and implicit attitudes.

Data from clinical communication (VR-CoDES and LUCAS) and client satisfaction (Session Rating Scale; SRS) were correlated with data from attachment, social distance and implicit/explicit attitude measures. Table 2.4 depicts the mean, standard deviation, and participants' score range for clinical communication and client satisfaction scores for study 1 at both time points. Table 2.3 above contains all relevant correlations. Effect sizes were medium to large throughout.

Table 2.4. Clinical communication scores at both time points

	Time 1 (N=22)		Time 2 (N=18-21)	
	Mean (SD)	Participants score range	Mean (SD)	Participants score range
VR-CoDES - % of providing space	65.62 (16.9)	20 to 92.8	70.64 (12.6)	40 to 90.9
VR-CoDES - % affect exploration	14.54 (12.6)	0 to 44.4	18.73 (13.3)	0 to 54.5
LUCAS	13.18 (1.99)	8 to 17.0	14.72 (.669)	13 to 16.0
SRS (Client satisfaction)	6.74 (2.65)	1.7 to 9.8	7.32 (1.44)	4.3 to 9.4

There was a positive, albeit non-significant, relationship between clinical communication '*affect exploration*' and '*providing space*' scores (p = .06). This suggests that psychologists that provided more space in session for clients to talk about their emotions also explored clients' feelings more frequently. There was a significant negative relationship between implicit attitudes and client satisfaction (p = .05). There was a significant positive relationship between '*providing space*' and client satisfaction (p = .01). There was also a positive non-significant relationship between '*affect exploration*' and client satisfaction (p = .18). These results suggest that clients felt more satisfied with psychologists that had more positive implicit attitudes towards LG people, and with those that provided more opportunities in session to explore and talk about feelings and emotions.

However, there was a negative non-significant relationship between attachment avoidance and *'affect exploration'* (p = .11) and a negative non-significant relationship between attachment avoidance and client satisfaction (p = .62). These results suggest that psychologists with higher avoidant attachment styles explored clients' emotions less frequently, subsequently clients felt less satisfied with psychologists that had higher avoidant attachment styles when compared to those with greater attachment anxiety style.

LUCAS displayed a negative non-significant relationship with VR-CoDES '*affect exploration*' (r = -.22, p = .33). and '*providing space*' (r = -.15, p = .51), suggesting that the two measures may be tapping into different areas of clinical communication. It appears that LUCAS may be measuring examiners' and academics' interpretation of '*good communication*' (Huntley et al., 2012), while VR-CoDES may be more '*client centred*' and focused on clients' perception of effective communication. Interestingly, the positive relationship between client satisfaction and both VR-CoDES scores (i.e. providing space and affect exploration) and the negative relationship between LUCAS and client satisfaction may suggest that clients prefer a less technical approach to exploring difficulties in a session.

2.4.7 RQ2 – Do measures of clinical communication change across time?

A paired-samples t-test revealed that the LUCAS scores were the only data significantly improving over time (p < .005). Overall scores for either client satisfaction or VR-CoDES (*providing space* and *affect exploration*) did not display such shift from time 1 to time 2 (p >.30). However, looking at the means of both variables (above Table 2.3) it is noted that scores improved slightly over time. Effect sizes were medium to large.

Analysing the cues and concerns expressed by '*clients'* in session (Table 2.5) revealed on average 12 cues/concerns per consultation at time 1, and 14 cues/concerns at time 2. Clients expressed their worries more often as indirect cues than direct concerns. The most frequently presented cue included emphasis on physiological and cognitive experiences (C), such as '*there is so much in my mind that I can't sleep*' or '*I shake and I tremble every time I think of it*' or '*I just have to force myself to eat and do other things*'. Often these cues were followed by expressions of vague words and emotions (A), like '*there just this thing*', '*I don't feel right*' or '*I just feel strange and odd*'. Present but less frequent were the use of non-verbal cues (F) like sighing or prolonged silence, and repetitions of neutral expressions (E), such as talking about another related topic or asking the psychologist advice or a

question about sessions. Pearson's correlation revealed a significant negative relationship between cues C and D (r = -.47, p < .05), thus suggesting that clients' expressions of cognitive and physiological cues were not standing out from context. Also, a paired samples t-test revealed that cues B and G were statistically being expressed more frequently (p < .05) at time 2 than at time 1.

Table 2.5. Frequency of cues and concerns for both time points

	Time 1 (N=22)			Time 2 (N=18)		
Type	**N (%)**	**Mean (range)**	**SD**	**N (%)**	**Mean (range)**	**SD**
Cues and concerns	265 (100)	12 (5-20)	4	252 (100)	14 (8-22)	4
Cues	239 (90.2)	10.7 (5-18)	3.14	228 (90.5)	12.7 (5-21)	4.51
Concerns	26 (9.8)	1.2 (0-3)	1.18	24 (9.5)	1.3 (0-5)	1.57
(A) Unspecified emotion word	61 (25.5)	2.8 (0-6)	1.90	41 (18)	2.3 (0-9)	2.49
(B) Hints to hidden concern	25 (10.5)	1.1 (0-4)	1.25	33 (14.5)	1.8 (0-4)	1.29
(C) Emphasize physical/ cognitive correlates	86 (36)	3.9 (1-7)	1.63	69 (30.3)	3.8 (1-7)	2.07
(D) Utterance stands out from context	32 (13.4)	1.5 (0-3)	1.01	23 (10.1)	1.3 (0-3)	1.02
(E) Repetition of neutral utterance	4 (1.7)	.18 (0-2)	.50	3 (1.3)	.17 (0-2)	.51
(F) Non-verbal cue	7 (2.9)	.32 (0-3)	.72	12 (5.3)	.67 (0-3)	.97
(G) Concern in the past	23 (9.6)	1.1 (0-4)	1.13	43 (18.9)	2.4 (0-5)	2.0

Analyses into group condition demonstrated that psychologists scored significantly higher (p < .05) with LUCAS in the '*client with depression*' condition, while scoring lower with VR-CoDES for the same condition. Cue A was significantly different (p < .01) across groups, whereby clients with anxiety provided more cue A than clients with depression, thus showing that clients with depression may need more probing and querying in vague expressions. '*Clients with depression*' gave on average less cues and concerns than clients

with anxiety ($p < .01$). In response to these, psychologists significantly elicited less cues and concerns from '*clients with depression*' ($p < .005$). These latter findings demonstrated that psychologists experienced more difficulty in providing space ($p < .05$) and exploring clients' feelings ($p < .09$) with '*clients with depression*' as opposed to '*clients with anxiety*'. As a result, '*clients with depression*' significantly ($p < .005$) felt less satisfied (M = 5, SD = 1.9) with their session as opposed to '*clients with anxiety*' (M = 8.2, SD = 2.3).

These total scores significantly improved ($p < .05$) after six months, whereby psychologists provided more space for '*clients with depression*' to talk about their concerns, and consequently clients felt more satisfied by the experience. Further analyses found that this positive shift was potentially caused by the random allocation of participants to client condition at both time points. So, a separate variable was created to identify participants that took part in the same group condition at both time points from those that took part in the opposite group condition. This approach created four further levels in the independent variable: *depression-depression*, *depression-anxiety*, *anxiety-anxiety*, and *anxiety-depression*. Table 2.6 depicts the mean scores for *'providing space'* and '*affect exploration*' for those subgroups. This subgroup division was not evident for LUCAS scores, so these are not included herein.

Table 2.6. Overall *'providing space*' and '*affect exploration*' by subgroup condition at both time points

	Providing space		Affect exploration	
	Time 1 Mean (SD)	Time 2 Mean (SD)	Time 1 Mean (SD)	Time 2 Mean (SD)
Depression-Depression (*n*=3)	52.80 (8.90)	63.49 (6.36)	10.37 (10.0)	11.83 (6.36)
Depression-Anxiety (*n*=4)	47.89 (19.3)	74.76 (11.1)	7.50 (9.57)	30.97 (17.6)
Anxiety-Anxiety (*n*=5)	80.10 (10.3)	79.29 (6.85)	18.14 (12.3)	19.43 (14.6)
Anxiety-Depression (*n*=6)	68.33 (13.6)	64.26 (15.8)	22.31 (14.1)	13.43 (7.57)

Data suggest that the depression condition was eliciting lower scores at both time points, even for participants that completed the anxiety condition. For participants taking part in the anxiety condition at time 1 and then in the depression condition at time 2 (anxiety-depression) there was a lowering in their scores, particularly for '*affect exploration*'. For participants taking part in the depression condition at time 1 and then in the anxiety condition at time 2 (depression-anxiety) there was greater improvement in '*providing space*' and '*affect exploration*'. Scores for participants in depression-depression remained low (when compared to anxiety-anxiety) but stable from time 1 to time 2. Invariably, psychologists in the '*anxiety condition'* at time 1 had greater client satisfaction and '*affect exploration*' ($p < .05$) than they did in the '*depression condition*' at time 2. Analyses into participant characteristics revealed no significant difference between group conditions, so the suggestion lies that the depression condition was potentially more difficult for participants, and perhaps confounding the opportunity for them to communicate more effectively with clients.

2.5. DISCUSSION

The current research was the first of its kind in attempting to collect attitudinal and clinical communication data from UK clinical psychologists-in-training towards LG populations. The aim of the study was to establish relationships between explicit and implicit attitudes, attachment styles, clinical communication and client satisfaction, and how these changed after six months of training. Research findings will be discussed individually in light of evidence and literature. Strengths, limitations and methodological considerations will be highlighted, alongside implications for clinical practice and recommendations for future research.

2.5.1. The relationship between implicit and explicit attitudes towards gay men and lesbians

Consistent with previous IAT studies (e.g. Banse et al., 2001; Boysen et al., 2008; Breen & Karpinski, 2013) investigating counsellors and general public implicit attitudes toward LG people, IAT data from both study 1 and study 2 (Table 2.2.) imply neutral or ambivalent implicit attitudes towards LG people. However, these scores need to be understood in context, since they are relative to the stimuli used (e.g. homosexual vs. heterosexual) thus suggesting that, when compared to the heterosexual stimuli, participants took longer to allocate positive attributes, and less time to allocate negative attributes. Scores did not significantly change after six months of clinical training. Findings suggest that implicit attitudes to LG people are stable, potentially negative when compared to attitudes towards heterosexual people, theoretically grounded on cultural factors, and may require greater effort to be changed (Petty, 2006, Petty, Wheeler & Tormala, 2003).

Data also suggested that psychologists-in-training's explicit and implicit attitudes scores formed relatively separate aspects of attitudes toward LG people, thus suggesting that measures may be tapping into different attitudinal constructs as suggested by Greenwald et al. (2009). These findings are similar to previous studies (i.e. Boysen et al., 2008; Boysen, 2009), whereby psychologists-in-training's self-reported positive attitudes whilst holding implicit negative attitudes towards LG people. The relationship between implicit attitudes and social distance was negative, but positive between social distance and explicit attitudes. Results suggest that despite self-reported positive attitudes, higher social distance was associated with lower levels of preference for LG people. These findings were consistent after six-month of clinical and academic training, which suggest consistency in levels of social distance and attitudes over time.

Although these results are tentative and exploratory, they provide challenging findings for clinical psychology practice, since it has been previously suggested that discrepant implicit/explicit attitudes translate into increased cognitive dissonance (Festinger, 1957;

Spencer & Myers, 2006; Briñol et al., 2006; Nosek & Banaji, 2009) and less predictable behaviour towards LG people (Rydell et al., 2008). If we take into account that implicit attitudes are grounded in culture and are often stable, then clinical training on LG topics needs to be addressed and incorporated in clinical psychology more systematically (Shaw et al., 2008) to help shift negative attitudes and build more resilience in psychologists when working with sexually diverse populations.

2.5.2. The relationship between attachment styles, attitudes and clinical communication scores

Attachment avoidance and attachment anxiety were stable across time and showed significant correlations. Data suggest potential negative relationships between attachment avoidance scores, social distance scores towards LG people, and clinical communication scores with simulated gay clients.

Simulated '*clients'* provided on average 12 cues (between 5 and 21) and one concern (between 0 and 5) per 10-minute session, suggesting that they were attempting to elicit an interaction from psychologists. Psychologists provided opportunities for clients to speak of those cues and concerns in about 68% of the session time, and of this only 17% of the time was used to explore affect related to those cues and concerns. Psychologists that provided more space in session also explored more affect with clients. Clients felt more satisfied when they received more opportunities in session to talk about their concerns and feelings, and they felt less satisfied with psychologists avoiding the topic. Interestingly, psychologists with higher attachment avoidance, despite having higher levels of positive implicit attitudes towards LG people, did not seem to effectively explore emotions with clients, as measured with the VR-CoDES. Clients also felt less satisfied with these psychologists.

Feedback from '*clients'* also suggest that those in the depression condition were less satisfied with their session than those in the anxiety condition, suggesting the participants with avoidant styles would interact less with clients presenting as low, extremely sad, and

potentially submissive. Perhaps clients perceived such interactions as more technical and factual, with less empathic components in the conversation, as evidenced by the negative relationship between LUCAS and VR-CoDES, and LUCAS and client satisfaction (SRS). As suggested by McCormack (2004), clinicians need "*to move beyond a focus on technical competence and … engage in authentic humanistic caring practices that embrace all forms of knowing and acting, in order to promote choice and partnership in care decision-making*" (p. 36). Anxious attachment styles did not elicit such findings, since people with higher attachment anxiety seemed to provide more space for clients to talk about their feelings in session. Clients also experienced psychologists with higher attachment anxiety as more interested and focused in their 10-minute session. Psychologists with higher anxiety showed lower avoidance style.

These findings suggest that avoidant attachment style may confound clinical communication with clients, as they provide less space for clients to speak about their worries. As suggested by Jakub (2012) and Salmon et al. (2008), greater avoidance style may lead to reduced ability to tolerate out-group interactions and may diminish such communicative opportunities. Similarly, Jones (2005) found that people with avoidant attachment styles often have more detached and distanced views about interpersonal relationships (Fraley & Shaver, 1998) thus exploring less emotional communication with others.

Overall, psychologists gave less opportunity to '*gay clients'*, in particular those with depression, to talk about their feelings, despite receiving more cues and concerns in a 10-minute session when comparing to other studies investigating similar variables with different professionals (Eide, Eide, Rustøen & Finset, 2011; Grimsbø et al., 2012; Vatne, Finset, Ørnes & Ruland, 2010). Independently of attachment style, performance was significantly better with '*clients with anxiety*' than with '*clients with depression*'. A potential suggestion is thus provided by Gonzalez and colleagues (2013) who found that clinicians struggle to engage more with clients presenting with depression than those without depression, even in

life-threatening physical health conditions. In particular, "*the more depressed the patient ... the less open the patient was with the physician, and the less engaged the patient appeared to be*" (p. 9) thus affecting the therapeutic relationship and communication between parties. Annen et al. (2012) and Lyons and Janca (2009) also found that clinicians often perceive clients with depression as apathetic, unmotivated and disengaged thus making consultations more difficult to conduct; however, most of the time clients are unsure if they can trust their therapists with their problems and just want to be asked the right questions.

When applying these results to LG clients, a study by Newman and colleagues (2010) uncovered that gay men with depression can struggle to engage in therapy when they do not perceive trustworthiness, confidentiality, encouragement, knowledge, support and, mostly, clear communication from their therapists. These are important areas to highlight, due to the dual stigmatisation that gay men may face when also diagnosed with a mental illness, thus the urge to ensure that therapy is thus provided in a safe environment and therapists have clear communication skills. Clearly, clinical communication skills particularly with '*clients with depression*' need to be addressed through training, taking into account that changing clinicians' attachment styles and implicit attitudes may be an onerous process.

2.5.3. Change in clinical communication scores across time

Change in clinical communication was only partially statistically reflected over time. Total VR-CoDES scores did not improve after six-months of clinical training. LUCAS scores improved significantly over time, potentially suggesting that the training and clinical experience gained by psychologists-in-training during the initial six months may only have addressed the communication skills competencies measured by LUCAS and not the VR-CoDES. However, total 'client' satisfaction scores did not change over time either, thus suggesting that training should perhaps focus on improving the skills captured by the VR-CoDES and not merely the technical skills as captured by LUCAS.

Since these two measures were initially negatively related, unlike findings from Hick (2009), results may tentatively suggest that the two measures are tapping into different areas of clinical communication. LUCAS may be potentially measuring academics' and researchers' perceptions of effective communication, while VR-CoDES may be measuring more descriptive, albeit 'client-centred' views of good clinical communication. Clients thus may prefer the latter experience in a clinical contact as measured by the SRS, where they seem to perceive greater connection with psychologists and receive more opportunities to talk about worries and concerns. Similar to other studies in communication with medical students, whereby communication scores increased after training (i.e. Roach, 2009; Fletcher, Cherry & O'Sullivan, 2010) perhaps there is a need to explore the quality of communication training that psychologists-in-training receive during their academic and clinical practice. Nonetheless, this variable was not accounted for during this study, so future research could explore communication training skills and their impact on satisfaction levels in clients.

When accounting for group condition, clients in the '*depression group'* felt less satisfied with their psychologists, since they had received less opportunity in session to explore and talk about feelings. Despite these initial scores, there was a significant improvement on follow-up data that led to '*depressed clients'* feeling more satisfied with the session. A potential explanation may be found in the random allocation of participants to the conditions at both time points, which meant that some less avoidant participants may have been allocated to the '*depressed condition'* on follow-up thus increasing the overall score. Evidence for this suggestion was not found in the data. Another potential explanation would be the improvement in communication skills over time acquired through training, which may have increased the frequency of exploring affect and client satisfaction. However, VR-CoDES scores did not change, and only LUCAS did, but the latter scores were not associated with client satisfaction at either time point.

A final explanation for increased satisfaction in '*depressed clients*' was perhaps due to differences in the '*clinical vignette'* and '*actor'* factors. Although we did not initially

predict for this potential confound, data suggest that even for those participants who completed different vignettes at both time points their scores significantly differ depending on whether they did the '*depression'* or '*anxiety'* condition. As such, consistently, the '*depression condition'* attracted the lowest VR-CoDES scores and lowest client satisfaction. Likewise, it is likely that actor interaction with '*depression vignette'* may have affected the scores, perhaps due to expectations of what a 'client with depression' should behave like, since these actors provided less cues/concerns to participants in session than '*anxious clients'* did.

2.5.4. Clinical implications

This study evidences the importance of clinical communication for client satisfaction and the process in the therapeutic alliance with sexually diverse clients. Findings from the VR-CoDES may need to be interpreted with caution in regards to generalisability, whilst acknowledging that samples in study 1 and study 2 appeared similar in their individual characteristics, like attachment styles and attitudes. This suggests that despite lower sample size in the clinical communication study, findings could be potentially supported had this study recruited larger samples.

The study also highlights the importance of providing opportunities for clinicians to explore clients' concerns and worries as a priority. Particularly clinicians may need to be more proactive in managing clients with depression, often presenting as unmotivated and lethargic. Even with clients who may not wish to initially express their emotions, clinicians can open the door of opportunity for such clients, thus demonstrating a genuine interest in client's difficulties. A potential problem may occur when clinicians have more avoidant attachment styles, thus facing uncertainty on how to communicate with clients presenting as uncommunicative and distant. Focus can be given in providing these clinicians with specific training on communication skills in such possible scenarios.

Findings also suggested a prevalence of negative implicit attitudes towards LG people, and a possible discrepancy with self-reported attitudes. Evidence suggests that implicit attitudes tend to be semi-stable and resistant to change, and altering these can be a gradual and lengthy process. This can also result in ambivalent behaviours towards LG clients, including increased avoidance and distance to talk about certain topics. Interestingly, in this study, psychologists with higher attachment avoidance displayed more positive implicit attitudes, but this did not seem to improve client satisfaction. This may suggest that psychologists' attachment style may have only reinforced distancing and avoidance with the '*gay client with depression*', as both seem to trigger potential social stigma. Psychologists should be encouraged and given access to training and supervision on conducting clinical interviews, formulations and interventions with sexually diverse clients presenting with complex mental health needs.

2.5.5. Methodological considerations and future research

This research was unique in exploring UK psychologists-in-training's attachment styles and attitudes towards LG people, whilst attempting to gather evidence in the quality of clinical communication with simulated '*gay clients'* with common mental health needs. A particular strength was the use of professional actors as '*clients'* and video recording the interactions with psychologists-in-training, so that data could be measured against two reliable clinical communication tools. 'Client' satisfaction (SRS) was also elicited from each actor interaction with all participants, thus aiming at supporting the results from the clinical communication tools. However this approach needs to be considered as a potential limitation to the validity of these results, since asking actors to rate their level of satisfaction with psychologists after a brief 10-minute encounter, even whilst 'in role' as clients, can produce contamination effects from other confounding factors not related to their 'client' role, i.e. likeability towards participants, personal expectations on therapeutic encounters, own attitudes towards sexuality topics, misunderstanding the vignette and 'client' information,

and variations throughout the day on tiredness and practice effects. Furthermore, the original SRS tool was developed with real clients and "to be a clinical tool, not a research instrument" (Duncan et al., 2003, p.5). Another limitation was the lack of inter-rater data for scoring the videos with the VR-CoDES and LUCAS tools. This approach limits findings to the subjective evaluation of one researcher, which could have been prevented if at least two other people had been involved in scoring a sample of the videos to ensure reliability of results.

Despite the small sample size, data appeared to suggest that psychologists-in-training in study 1 were similar to a national sample of peers (study 2) in their attachment styles, explicit and implicit attitudes, social distance, and other demographic characteristics. Although generalisability can be disputed, due to potential power issues with the sample in study 1, results can tentatively suggest predicted relationships between some of the researched variables, even if at this pilot stage many appeared non-significant. Resulting effect sizes suggest that findings could potentially improve with the increase in sample.

Altogether, the results also suggested that VR-CoDES and SRS data did increase slightly after six months exposure to clinical training but this positive shift was non-significant, even though data from LUCAS did produce a significant increase. The study was not predicting any change in these variables, rather exploring such possibility, since there was no specific 'communication training' being introduced to participants over the six-month period, as in the study by Roach (2009). As such, it is widely expected that any significant change in levels of communication (as captured by the VR-CoDES) and client satisfaction (as captured by the SRS) may occur over longer periods of time and require longer client-therapist exposure, rather than a brief 10-minute encounter. Since training clinical psychologists in the UK takes at least three years to complete, it then becomes a more realistic expectation that perhaps a longitudinal study spanning over 12 to 18 months would have been ideal to reflect any real change in these variables. This was not possible at

this time due to logistic constraints but future studies could address this limitation by eliciting follow-up data.

Participants were randomly and blindly allocated to group conditions thus decreasing the probability of selection bias. However, such design meant that some participants may not have encountered the same condition on follow-up, which made data comparison more difficult. Nonetheless this is a positive outcome since it reduced participants' familiarity with the condition, but it also meant that small sample size may have critically influenced the process of data analysis due to such randomisation. Alongside this, client scenarios may have prioritised mental health needs and not sexual orientation, which was a potential confound when scores from the '*depression condition'* were overall more negative than the '*anxiety condition'*. Nonetheless, this may have been the most significant finding from this study suggesting that focus should be given on training and researching psychologists in communication skills with '*clients with depression*', since previous studies have proposed that working with this client group is repeatedly difficult.

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CHAPTER 3

Concluding Discussion

Clinical communication and attitudes toward Lesbian and Gay people in current and future research context

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3.1. CONCLUDING DISCUSSION

This chapter follows a systematic review (Chapter 1) and empirical study (Chapter 2) of the existing attitudes and behaviours of psychologists towards Lesbian and Gay (LG) populations. While the systematic review revealed limited literature on the topic and a discrepancy between psychologists' explicit attitudes and behaviour patterns towards LG people, the experimental study focused on communication patterns towards simulated gay clients in a sample of United Kingdom (UK) clinical psychologists-in-training. There was a focus on psychologists' demographic characteristics and attitudes towards LG people, and how these may be related to their communication with '*gay clients*' in session. The aim of this chapter is to stimulate further discussion of the current research findings, but also to provide summarised versions for participants and for wider audiences, and to propose additional areas for future research.

3.1.1. Background of current research

Previous research has provided evidence of the negative attitudes amongst psychologists towards LG populations, in particular when behavioural measures and observations are factored into the analyses. For instance, research has found ambivalent behaviours (Finkel et al., 2003; O'Brien, 2003; Scher, 2009), anxiety and avoidance (Gelso et al., 1995), and expressions of social distance (Barrett & McWhirter, 2002; Jones, 2000) towards LG people. These findings were applied to both licensed psychologists and psychologists-in-training. Studies also revealed that psychologists would: a) show less concern for gay clients when their self-reported attitude score towards LG people was more negative (Clarke, 2010); b) consider LG clients riskier and more likely '*to harm other people'* (Bowers & Bieschke, 2005); c) propose more controlling interventions with gay clients (O'Brien, 2003); d) be less willing to work with gay clients in therapy (Barrett et al., 2002); e) regard LG identity as more pathological; and f) support the use of therapy to change a client's sexual orientation (Kilgore et al., 2005). The only study evaluating implicit

attitudes alongside explicit ones (Boysen & Vogel, 2008) uncovered a discrepancy between positive explicit and negative implicit attitudes, even after participants were exposed to a training package on diversity and equality topics. The current study provided further supporting evidence for such findings, in particular demonstrating a relationship between the individual characteristics of psychologists, and their attitudes and behavioural expressions towards LG people.

3.1.2. Evidence on implicit and explicit attitudes

In order to explore participants' demographic characteristics and the divide between explicit and implicit attitudes towards LG identities, the 'Implicit Association Test' (IAT), the 'Attitude Toward Lesbians and Gay Men' (ATLG), and the 'Social Distance Scale' (Social Distance) were employed to collect attitude data.

The mean and range of scores for the ATLG at both time points (Table 2.2 in Chapter 2) suggest that the sample of psychologists-in-training held significantly ($p < .005$) more positive self-reported attitudes than psychology populations from previous studies (i.e. Anhalt et al., 2003; Blount, 2002; Korfhage, 2006). It is equally of interest that the ATLG mean reported by Herek (2002) in his general population sample (n = 1,335) was more negative (M = 2.8, SE = .11) when compared to the samples in this study (M = 1.6). However, looking at the range of scores in the current sample, some psychologists-in-training expressed very negative views about LG people and scored at the higher end of the negative range.

The mean scores for the Social Distance scale (Table 2.2) suggest that the current sample would be *'probably willing'* to interact with LG people in social circumstances (M = 1.0). However, some participants' individual scores suggest that they would be *'definitely unwilling'* to interact with LG people on a daily basis. These scores cannot be directly compared to another population sample since this tool was adapted to this study and has not been trialled elsewhere. However, a study investigating social distance with a different tool

(i.e. Guzmán et al., 2007) reported low social distance in 79.3% of their sample of Puerto-Rican graduate Public Health students (n = 92), even if a higher proportion of their sample (44%) would not choose '*men who dress as women*' or '*women who dress as men*' as part of their circle of friends, and would rather have them as acquaintances. However, those findings just highlight problems with associating LG people/identities with specific patterns of behaviour, which are often not representative of LG people but based on archaic and satirical social stereotypes (King et al., 2007).

The mean scores from the IAT (Table 2.2) suggest that the samples in studies 1 and 2 did not significantly differ in their implicit attitudes from those reported in previous research (i.e. Banse, Seise & Zerbes, 2001; Boysen et al., 2008; Breen & Karpinski, 2013). In particular, Boysen et al. (2008) highlighted an ambivalent but slightly negative implicit mean score (M = -.34, SD = .17) in their sample of psychologists-in-training which was uncorrelated with the self-reported positive attitudes. Similarly, Banse et al. (2001) and Breen & Karpinski (2013) reported an ambivalent or neutral implicit mean score (respectively, M = -.07, SD = .09; M = –.04, SD = .33) for their undergraduate heterosexual sample, which was also uncorrelated with their self-reported positive attitudes. When contextualised alongside the heterosexual stimuli presented to participants the above results, including those elicited in this study, represent a negative stance towards LG people, even though they may appear neutral or ambivalence as standalone data. As such, participants took longer to allocate positive words and attributes, and less time to allocate negative words and attributes, to LG images than they did to heterosexual images.

As in previous research (i.e. Boysen et al., 2008; Boysen, 2009; Jakub, 2012), the explicit and implicit measures of attitudes in this study were not related to each other, while implicit attitudes were negatively correlated with the interpersonal measure of social distance. When comparing data from study 1 with study 2, the relationship between explicit and implicit attitudes became negative but non-significant. As such, psychologists-in-training held implicit prejudice to LG people whilst self-reporting positive attitudes and

lower social distance. These results were consistent at the six-month follow-up and after attendance of an adult clinical mental health placement and associated academic training. These explicit and implicit attitude scores are quite relevant for clinical practice, as previous research has highlighted that conflicting implicit and explicit attitudes can increase cognitive dissonance (Festinger, 1957; Spencer & Myers, 2006; Briñol, Petty & Wheeler, 2006; Nosek & Banaji, 2009) and less predictable behaviours toward LG people (Rydell, McConnell & Mackie, 2008), thus potentially affecting psychologists in their clinical practice.

These results corroborate previous evidence that implicit and explicit attitudes may be more discrepant in societies, and amongst professional groups, where discrimination against certain minority groups is discouraged or prohibited (Fazio, 1990; Fazio & Towles-Schwen, 1999; Nosek & Smyth, 2007; Boysen et al., 2008; Banse et al., 2001); more so than in societies where negative attitudes toward LG people are tolerated and sanctioned by legislation (e.g Fazio et al., 1995; Dunton & Fazio, 1997; Franco & Mass, 1999). Nonetheless, and independently of social acceptance of LG people, negative attitudes and social perceptions of LG identity can be internalised by LG people themselves (Jellison, McConnell, & Gabriel, 2004) thus leading to greater psychological distress ($p < .05$) (Hatzenbuehler et al., 2009). It is then vital that psychologists avoid being a vehicle of such negative bias towards LG clients in sessions, by evaluating their clinical practice, receiving appropriate supervision, and receiving relevant training on Sexual Diversity topics.

3.1.3. Individual characteristics, attitudes and clinical communication

Data from the 'Experiences in Close Relationships-Short Form' (ECR-S; attachment avoidance and anxiety), clinical communication (VR-CoDES and LUCAS) and client satisfaction (Session Rating Scale; SRS) were analysed for significant relationships alongside the attitude measures (Table 2.3, in Chapter 2). No similar studies exist for other psychology populations or the general public, as such these findings are unique. Paired-samples t-test did not reveal any significant changes in scores for either attachment subscales

across time, suggesting that participants' anxious and avoidant attachment styles were consistent after six months.

Results show that attachment anxiety seems to be negatively correlated with implicit attitudes and positively with social distance. Attachment avoidance seems to be positively correlated with implicit attitudes and negatively with social distance. The negative relationship between attachment avoidance and VR-CoDES (*'affect exploration'*) suggests that participants with higher attachment avoidance style were perceived as exploring clients' emotions less frequently, in particular with clients with depression ($p < .05$). As suggested by Jakub (2012) and Salmon et al. (2008), a more avoidant style may lead to a decreased ability to tolerate out-group dynamics and more inhibition in social interactions. Similarly, Jones (2005) found that people with avoidant attachment styles often have more detached and distanced views about interpersonal relationships (Fraley & Shaver, 1998) thus engaging in less emotional communication with others.

Data revealed that simulated '*clients'* attempted to elicit interactions from psychologists by giving more cues and concerns in a 10-minute session when compared to other studies measuring similar variables with different professionals (Eide et al., 2011; Grimsbø, Ruland & Finset, 2012; Vatne et al., 2010). However, in only 68% of the session time psychologists gave clients the opportunity to talk about their cues and concerns, and of this only 17% of the time was spent exploring clients' emotions related to those cues and concerns. Clients felt more satisfied after the session when they were provided with more space in session to talk about their concerns and feelings. Psychologists that provided more space in session also explored more affect with clients. Similarly, levels of client satisfaction were positively correlated with psychologists' levels of positive implicit attitudes towards LG people. However, most participants with positive implicit attitudes appeared to have avoidant attachment styles and explored less clients affect; and client satisfaction decreased when they encountered psychologists with more avoidant attachment styles and who explored less affect in session.

Research suggests that *'avoidants'* internal models of others tend to be negative, and they will avoid closeness to and trusting in others, often reporting dissatisfaction in relationships and friendships (Anders & Tucker, 2000; Guerrero, 1996) and view communication about feelings as a non-essential component in relationships (Jones, 2005). They differ from people with anxious attachment styles, who will seek more proximity in relationships and will attempt to retain them for longer (Collins & Read, 1990). Relating to clinical practice, these findings suggest that certain psychologists' individual characteristics may potentially hinder the therapeutic process of developing a relationship, for example when therapist-client interaction is shortened by an avoidance of talking about feelings or concerns.

So, what would it be like if avoidant therapists met equally avoidant clients? The study did not account for the attachment style or other demographic characteristics of the '*simulated gay client'* but they were all men and aged above 40, which may need to be considered due to the role of age, sexual orientation and gender in accessing therapy (Davies & Neal, 1996). This '*client'* variable is also considered when taking into account findings by group condition, or how psychologists in the '*depression group'* scored lower in all outcome measures when compared to the *'anxiety group'*. Actors in the depression group may have enacted the '*client'* based on their assumptions of what depression may look like. Nonetheless, realistically speaking, Gonzalez and colleagues (2013) have found that practitioners struggle to relate more with clients with depression overall, and "*the more depressed the patient ... the less open the patient was with the physician, and the less engaged the patient appeared to be*" (p. 9).

Similarly, Annen, Roser and Brune (2012) investigated behavioural differences between patients with depression, mania and schizophrenia whilst in therapy. They found significant differences between clients with depression and mania in regards to reduced expressive gesturing, passivity, low assertion and relaxed behaviour. Similar to other studies (i.e. Lyons & Janca, 2009), practitioners often rated clients with depression as apathetic,

unmotivated and disengaging, thus making consultations more difficult to communicate and conduct. However, depression, quality of life and client satisfaction can be greatly improved through tailored client participation, joint decision-making, and good clinician communication skills, even in clients with life-threatening cancer (Vogel, Leonhart & Helmes, 2009). When applying this model to LG clients, a study by Newman and colleagues (2010) uncovered that gay men with depression often seek clinicians for their trustworthiness, confidentiality, encouragement, knowledge, support and, most of all, clear communication. These are important areas to highlight, due to the dual stigmatisation that gay men may face when diagnosed with a mental illness. This makes it particularly important to ensure that therapy takes place in a safe environment and that therapists have the right communication skills.

Feedback from '*clients'* also suggests that those with '*depression'* were less satisfied with their session than those with '*anxiety'* ($p < .01$), suggesting that participants with avoidant styles would interact less with clients presenting as '*depressed'* and potentially '*submissive'*. Similarly, the more space '*clients'* received to talk about their feelings the more satisfied they felt. While LUCAS scores placed participants as interacting significantly more professionally with 'clients' in the '*depression condition*', the VR-CoDES scores suggest the opposite, i.e. that participants experienced more difficulty ($p < .05$) in providing space and exploring client's feelings when the '*gay client*' was presenting with depressive symptoms as opposed to anxiety symptoms. Consequently there was a negative correlation between LUCAS and VR-CoDES communication scores and there was a significant correlation between VR-CoDES (providing space) and the SRS scores.

This perhaps suggests that the two measures may be tapping into different areas of clinical communication, with LUCAS potentially measuring clinical efficacy and professionalism (explicit), while VR-CoDES measuring clinical closeness, empathy and curiosity (implicit). Clients thus may prefer the latter experience in a clinical contact. Focus should then be granted to building psychologists skills that may match aimed outcomes as

measured by the VR-CoDES, since these seem to be the ones more likely linked to client session satisfaction.

3.1.4. Changing attitudes towards LG people

The current study was not expecting any changes in implicit attitude scores, seeing that the sample would not necessarily be exposed to specific training on LG topics over the six-month interval. Mean and range scores from time 1 to time 2 suggest that despite a small non-significant improvement in implicit attitudes these remained overall negative. Moreover, the reduction in social distance at time 2 increased its gap with implicit negative attitudes, thus suggesting that people with more negative implicit views towards LG people would prefer to distance themselves from such people despite self-reported acceptance and positive attitudes.

Previous literature provided mixed findings on implicit attitude change, with some studies demonstrating a gradual process (i.e. Gawronski & Strack, 2004, 2012; Gregg, Seibt & Banaji, 2006; Petty et al., 2006) and others suggesting that context and socialisation can speed up change (e.g., Barden et al., 2004; Dasgupta & Greenwald, 2001; Wittenbrink, Judd & Park, 2001). A study by Boysen et al. (2008) found that specific training addressing clinical competence, knowledge and awareness of multicultural diversity did not elicit change in implicit attitudes toward LG people. Accordingly to the metacognitive model of attitudinal change (Petty, 2006) attitudes that have been recently modified require greater effort in processing attitude-related information than what was required for the old attitudes (Briñol et al., 2006; Petty et al., 2006).

New attitudes may not fully replace the old attitudes and both can co-exist (Wilson, Lindsey & Schooler, 2000). Old attitudes constitute a default position becoming implicitly present and people can easily revert to these, or face cognitive conflict between the old and new attitudes when faced with uncertainty, dilemmas or pressure (Petty, Wheeler & Tormala, 2003; Petty et al., 2006). This is especially the case in situations that require fast

decision-making and responses to an attitudinal object (Dovidio et al., 1997). These findings can potentially impact on selection of candidates for healthcare qualifications, including clinical psychology, thus leading to an inquiry into candidates that may be more prone to positive implicit attitudes towards minority and diversity groups.

3.1.5. Changing clinical communication skills and behaviour

Statistically significant change in clinical communication was only partially reflected over time. While clinical communication scores, as coded with the VR-CoDES did not improve after six-months of clinical training, client satisfaction (SRS) remained relatively low with a total score below the required baseline (below 9) for client satisfaction. LUCAS scores improved significantly over time, potentially suggesting that the training and clinical experience gained by psychologists-in-training during the initial six months may only have addressed the communication skills competencies measured by LUCAS and not the VR-CoDES. Since these two measures were initially negatively related, results may tentatively suggest that they are tapping into different areas of clinical communication. Despite these results, data from the mean and range scores (Table 2.3 in Chapter 2) and medium effect sizes suggest a tentative increase in communication scores at all levels. In particular, psychologists provided more space in session for the clients to talk about their feelings, and also explored these feelings in more detail.

Furthermore, data from the group conditions demonstrate that psychologists improved in providing more opportunities for '*clients with depression*' to talk about their concerns at time 2 when compared to time 1 ($p < .05$). Consequently, these clients felt more satisfied with their psychologists at time 2 than they had a time 1. However, this analysis was problematic due to the randomised allocation of participants to group conditions, which meant that some participants at time 1 did not take part in the same condition at time 2, so a new variable was created to identify participants that took part in the same condition at both time points from those that took part in different conditions. This further reduced sample size

per condition and limited the analytic procedures and power, because there were four subconditions to consider: *depression-depression*, *depression-anxiety*, *anxiety-anxiety*, and *anxiety-depression*. This subdivision highlighted that psychologists consistently had lower clinical communication scores with the '*client with depression*' when compared to '*client with anxiety*', particularly in providing less opportunity for the client to talk about their worries and concerns and exploring feelings with clients less frequently. From time 1 to time 2 there was no evident improvement for psychologists in the depression condition, for the potential reasons mentioned previously related to work with clients with depression.

The overall results suggest that psychologists with avoidant attachment styles and clients presenting with depression may result in less satisfying therapeutic relationships and outcomes for clients. There is then a need to evaluate the communication needs and interpersonal skills of clinical psychologists-in-training in the UK, since these are vital for good therapeutic alliance and outcome. Drawing on other studies of communication with medical students, which saw communication scores increase after training (i.e. Roach, 2009; Fletcher, Cherry & O'Sullivan, 2010), training courses could focus on enhancing psychologists' practical communication skills whilst accounting for individual factors, like psychologists' attachment styles alongside clients' more inter-personally difficult mental health presentations.

3.1.6. Strengths, limitations and methodological considerations

This research was unique in exploring UK psychologists-in-training's communication skills with simulated 'gay clients' with common mental health issues whilst attempting to find relationships between attachment styles and attitudes towards LG people. The random and blind allocation of participants to standardised group conditions seemed to produce a significant effect between samples, whilst decreasing the probability of selection bias. However, such selection was not maintained across time, which meant that some participants may not have encountered a similar scenario on follow-up. This is a positive

aspect of the method, as it reduced participants' familiarity with the scenario and the video interview task but it also meant that small sample size may have critically influenced the process of data analysis due to such randomisation and the creation of four subconditions. Alongside this, the group conditions tapped into mental health needs and not sexual orientation *per se*, which was a potential confounding variable when total communication and client satisfaction scores for the depression condition were more negative than for the anxiety condition. Nonetheless, this may be the most significant finding from this study, alongside attachment styles, as to suggest that focus should be given on training psychologists in communicating more effectively with '*clients with depression'*, as these seem to be the ones most clinicians find it difficult to work with.

A further strength was the use of professional actors as simulated '*gay clients'*, video-recording the interactions, and asking '*clients'* to rate their satisfaction after each session. The aim was to gather enough data to be measured alongside two reliable tools of clinical communication and behaviour. This approach was potentially a unique feature amongst similar studies in the area of attitudinal research, as many have used either vignette or hypothetical clients based on participants' own clinician experience or expectations (Barrett et al., 2002; Blount, 2002; Bowers et al., 2005; Clarke, 2010; Gelso et al., 1995; O'Brien, 2003). At the same time, using actors can be seen as a drawback in communication research, since we did not use real-life interactions between clients and therapists.

The use of actors portraying clients with mental health needs suggested participants' high quality interview skills, possibly confirmed when the group conditions elicited significant differences. As such, using an interactive approach with real people, albeit actors, further data were collected to account for participants self-reporting of attitudes and social distance, to be evaluated against the observational tools by independent raters, including 'client' levels of satisfaction from each interaction with all participants. All these measures were completed separately and results seem to be in line with the theoretical argument outlined above. Despite this, the 10-minute interactions between participants' and

'clients' need to be considered as a possible limitation, as they may not fully capture the richness of a real, and longer, clinical session between a psychologist and a gay client with mental health needs, nor capture all the interactive and communication processes involved in longer-term therapeutic relationships.

Despite the low response rate, small sample size, and high attrition rates, data suggested that samples in study 1 and study 2 were similar in most variables and characteristics. As such, psychologists-in-training in study 1 that completed the role play with simulated gay clients appeared similar to a national sample of peers in their attachment styles, explicit and implicit attitudes, social distance, and other demographic characteristics. Unfortunately study 2 did not collect data on communication skills due to logistic and cost issues. Generalisability of results may be disputed, due to potential power issues with the sample in study 1, but results tentatively suggest interactions between many of the variables researched, even if at this pilot stage many resulted as non-significant. This could potentially change with increased sample size; however, the logistics and cost of doing similar research at a national level need to be seriously considered regarding its potential contribution for clinical practice.

3.2. PERSONAL REFLECTION

This project lent itself to several points of reflection from its onset, and mostly during data interpretation and write-up. From the onset there was a need to constantly evaluate my position as researcher in relation to the participants as fellow colleagues. They were all psychologists-in-training like me and some had been recruited from the same University and clinical psychology department I was training with. At times, this produced awkward moments where, as part of the course requirements during clinical and research skill groups, I was expected to present details of my research progress to other psychologists-in-training, and some of these people had been participants in my research. Particularly, I had to be overtly conscientious of confidentiality issues but also not to present any findings that would potentially affect the next stages of data collection.

Another reflection point emerged alongside my personal and professional transformation, including an internal negotiation from being simultaneously a professional with ethical responsibilities and expectations, and belonging to several minority groups. At times, I felt unsure if my own professional expectations and my personal/cultural identities were biasing my research interpretations. On occasions I also felt surges of emotion when past memories were triggered; about injustice, ambivalence and denial from some healthcare professionals towards myself and others close to me. These made me want to 'fight' against my professional identity, and at times believe that 'both worlds' could not be merged. However, supervision, peer support, and the literature were anchoring points of reassurance that I was being as ethical, systematic and, above all, neutral as humanly possible.

I was able to reflect on my own attitudes and behaviours towards all clients, but particularly those belonging to diverse and minority groups. Scoring the video-recordings also encouraged me to reflect on my attachment style and characteristics, and improve my clinical practice with people presenting with depression and other complex mental health needs. These experiences led me to seek extracurricular training on both topics that were further pathways to self-discovery.

3.3. PARTICIPANT REPORT[5]

Research was conducted over two related studies with a sample of clinical psychologists-in-training (trainees) based in the United Kingdom to measure their individual characteristics and level of attitudes toward Lesbians and Gay men (LG), and to observe how the sample in one of the studies would behave and communicate with a '*gay client with mental health needs'* (actor) during a 10-minute session. The aim of this study was to build upon previous research on attitudes of psychologists towards LG people, which found that negative or ambivalent attitudes still exist amongst psychologists and would be displayed through unconscious behaviours when interacting with LG clients in session. For example, behaviours would include forgetting session contents and client details, being anxious in session, and avoiding talking about certain emotional topics with the client. Studies also showed that psychologists would show less concern for gay clients when their attitudes were more negative but also consider LG clients riskier and more likely '*to harm others*', propose more controlling interventions with gay clients, be less willing to work with gay clients in therapy, regard LG identity as more pathological, and support the use of therapy to change a client's sexual orientation. These findings suggested that when clinicians have negative or ambivalent attitudes towards LG clients these can also have negative impact on how the client perceives the therapist as non-credible and unsafe, thus affecting the results in therapy. This is then an important issue for clinical psychology, because of the great number of LG clients that may present in therapy with mental health needs and in vulnerable situations.

Findings from our study concluded that trainees had positive self-reported (explicit) attitudes while also having slightly negative and ambivalent unconscious (implicit) attitudes to LG people, and these were similar results to previous studies. This is an important finding, because previous research has shown that when both types of attitudes are not matching, people can display unpredictable behaviours, like avoidance to talk about clients' worries or

[5] This report will be provided to all participants that requested feedback about their participation. A newsletter article has been produced for publication – see Appendix 3.A

forgetting information relevant to the concerns. This study also showed that although trainees interacted in a professional manner with '*gay clients*' they showed less empathy and interest when client expressed concerns. '*Clients'* also felt overall dissatisfied with their sessions and did not feel a connection with their '*trainee'*. In particular, trainees who had more avoidant personal characteristics also had more difficulty in communicating with '*clients with depression*', and did not explore clients' feelings as often or gave space for '*clients*' to speak about their worries. Whenever clients gave hints to the trainee that they wanted to talk about their concerns, most of the time these were not noted or followed-up by the trainee. '*Clients with depression*' felt less satisfied with their session than '*clients with anxiety*' and findings were similar after six months of clinical training and placement. However, scores improved slightly after trainees attended six months of clinical practice and academic training. These clients also felt slightly more satisfied with their trainees on follow-up. Findings with 'clients with anxiety' were overall positive.

Similar to other studies in communication with medical students, whereby communication scores increased after training, these findings highlight the need for clinical courses to address trainees' clinical communication skills with clients with depression or who may be less interactive in session, but also the need to provide training to trainees on sexual diversity issues perhaps to help shift the unconscious ambivalent or negative attitudes to more positive levels. When working with gay men in therapy, and due to the dual stigmatisation that gay men may face when also diagnosed with a mental illness, there is an urge to ensure that therapy is provided in a safe environment and therapists have positive communication skills despite their individual characteristics, background and attitudes. Also, due to the limited research in this area, future studies could focus on evaluating the impact of sexual diversity training on attitudes and clinical communication of trainees with gay clients with depression when comparing to heterosexual clients with depression.

3.4. RESEARCH PROPOSAL

3.4.1. Introduction

Previous research has suggested that psychologists and psychologists-in-training may display ambivalent behaviours (Finkel, Storaasli, Bandele, & Schaefer, 2003; O'Brien, 2003; Scher, 2009), anxiety and avoidance (Gelso, Fassinger, Gomez & Latts, 1995), and expressions of social distance (Barrett & McWhirter, 2002; Jones, 2000) towards Lesbian and Gay (LG) people. Studies also revealed that psychologists would show less concern for gay clients when their attitudes towards LG people were more negative (Clarke, 2010), consider LG clients riskier and more likely '*to harm other people*' (Bowers et al., 2005), propose more controlling interventions with gay clients (O'Brien, 2003), be less willing to work with gay clients in therapy (Barrett et al., 2002), regard LG identity as more pathological, and support the use of therapy to change a client's sexual orientation (Kilgore et al., 2005). These findings are important when cross-referenced with prevalent discrepancy between positive explicit (self-reported) and ambivalent or negative implicit (unconscious) attitudes towards LG people amongst psychologists (Boysen & Vogel, 2008; Boysen, 2009). This may lead to psychologists presenting with cognitive dissonance (Nosek & Banaji, 2009; Ranganath & Nosek, 2007; Steffens & Jonas, 2010) and unpredictable behaviour in therapy (Gawronski & Strack, 2012).

The current research (see Chapter 2) uncovered similar trends in implicit/explicit attitudes amongst a sample of clinical psychologists-in-training in the UK. Ambivalent but slightly negative implicit attitudes of the current sample were equivalent to those found in earlier studies (i.e. Banse et al., 2001; Boysen et al., 2008; Breen & Karpinski, 2013) thus showing a prevalence of unconscious social prejudice and distance towards sexual diversity. Furthermore, clinical communication scores revealed that participants interacted professionally with '*gay clients*' but showed significantly less empathy and interest in clients' concerns. '*Clients'* also felt overall dissatisfied with their sessions. In particular, participants with more avoidant characteristics appeared to have more difficulty in

communicating with '*clients with depression*', did not explore clients' feelings as often, and gave '*clients*' less opportunities to speak about their worries. Whenever clients gave hints to the psychologist that they wanted to talk about their concerns, often, these were not noted or followed-up. '*Clients with depression*' felt significantly less satisfied with their session than '*clients with anxiety*' and findings were similar after six months of clinical training and placement with only overall non-significant improvement.

The main findings from the study highlighted potential limitations with the chosen design, including not having a group condition to compare sexual orientation of client. Despite the experimental approach to randomisation of participants to group conditions, and the use of real life video-recorded interactions with professional actors, data emerging from the *'depression condition'* potentially uncovered a clinical difference when working with *'clients with depression'* as opposed to *'clients with anxiety'*. This was a potential confound to findings, since it distracted results from clinical communication with *'gay clients'* becoming clinical communication with *'clients with depression'*. This limitation was also reinforced by the small sample size, despite having comparative data from a national sample of UK psychologists-in-training for the independent variables (i.e. attitudes, attachment styles and other demographic data). As such, results may not be easily generalised to the overall psychology population due to lack of similar communication studies.

3.4.2. Research aims

Future research could thus propose to investigate psychologists' clinical communication with '*gay clients with depression*' (professional actors), as opposed to '*heterosexual clients with depression*'. Choice of '*depression'* and not '*anxiety'* is based on previous findings that working with clients with depression tends to be more challenging for clinicians (Gonzalez et al., 2013). Furthermore, gay men in therapy often appear to attract more ambivalence and interpersonal difficulties in therapy than lesbians (e.g. Barrett et al., 2002; Clarke, 2010; O'Brien, 2003). Gay men may also face more social discrimination (Herek & McLemore, 2013), dual stigmatisation when also diagnosed with a mental illness,

and may struggle to access therapy and fully trust therapists (Newman et al., 2010). Research could also consider investigating participants' individual characteristics, like gender, attachment style, and emotional intelligence, personal contact with LG people, and training and experience in LG topics, and how these relate to attitudes, clinical judgements and social distance towards gay clients. The following hypotheses and research questions could be considered:

Hypotheses

H1 – Participants will provide more opportunities for 'heterosexual clients' to speak about their concerns than they will with 'gay clients'.

H2 – Participants will explore more affect with 'heterosexual clients' than they will with 'gay clients'.

H3 – 'Gay clients' will express less session satisfaction than 'heterosexual clients'.

H4 – Participants attending sexual diversity training will score more positively on attitudes and clinical communication on follow-up than participants not attending the training session.

Research Questions

RQ1 – What is the relationship between participants' attachment styles and their levels of concern for 'gay clients'?

RQ2 – What is the relationship between emotional intelligence, attachment, implicit attitudes, and clinical communication?

RQ3 – What will be the levels of clinical judgment towards gay client as opposed to heterosexual clients?

3.4.3. Design

This study would use a pretest-posttest design with two time points separated by six months, where sexual orientation of client (gay *vs* heterosexual *vs* control) would be the main independent variable. One dependent variable would be clinical communication measured with the Verona Coding Definition of Emotional Sequences (VR-CoDES;

Zimmermann et al., 2010). Client satisfaction (measured with the Session Rating Scale; Duncan et al., 2003) would also be collected for inter-rater data alongside other dependent variable. Further data would be collected from participants on attachment, implicit and explicit attitudes towards LG people, social distance to the client and LG people in general, clinical judgement to the client (Therapist Personal Reaction Questionnaire; Davis et al., 1977) and emotional intelligence (Schutte Emotional Intelligence Scale; Schutte et al., 1998) to identify any potential relationships between all variables. The intervention would be a training package on sexual diversity issues for mental health professionals (i.e. Jackson, McCloskey & McHaelen, 2011) to be integrated into the clinical course upon discussion with the course director and academic staff, delivered over one day (six hours) or over three to four days (2 hours each). Alternatively, sexual diversity training would be delivered over the internet by asking participants to login unto a website for one hour a month over five months and complete the required reading and tasks.

Participants would be recruited from a sample of clinical psychologists-in-training, from the North West of England. Participants would be randomly and blindly allocated to all conditions at both times points, and they would interview the 'client' for 10 minutes. Interviews would be video-recorded. *A priori* power calculations recommend a sample size of about 34 people, in order to achieve a medium effect size with 80% power (to detect a relationship between variables) with $\alpha \leq .05$ significance level. 'Clients' would be professional actors hired from a reputable company, as such three 'clients' would be required, one for each condition. The cost for this project would include the hire of actors at both time points (£600) and the purchase of the implicit measure software license (£400). There would be no cost in setting up all other measures as they would hosted online by the main researcher. The training package would be covered by the hosting university as part of the academic curriculum for clinical psychologists-in-training, so this would be set up online by the main researcher.

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Appendices

Appendix 1.A

Printout of Guidelines for Authors '*Clinical Psychology Review*'

Image removed to comply with copyright requirements.

Guidelines are available online from: http://www.elsevier.com/journals/clinical-psychology-review/0272-7358/guide-for-authors

Appendix 1.B

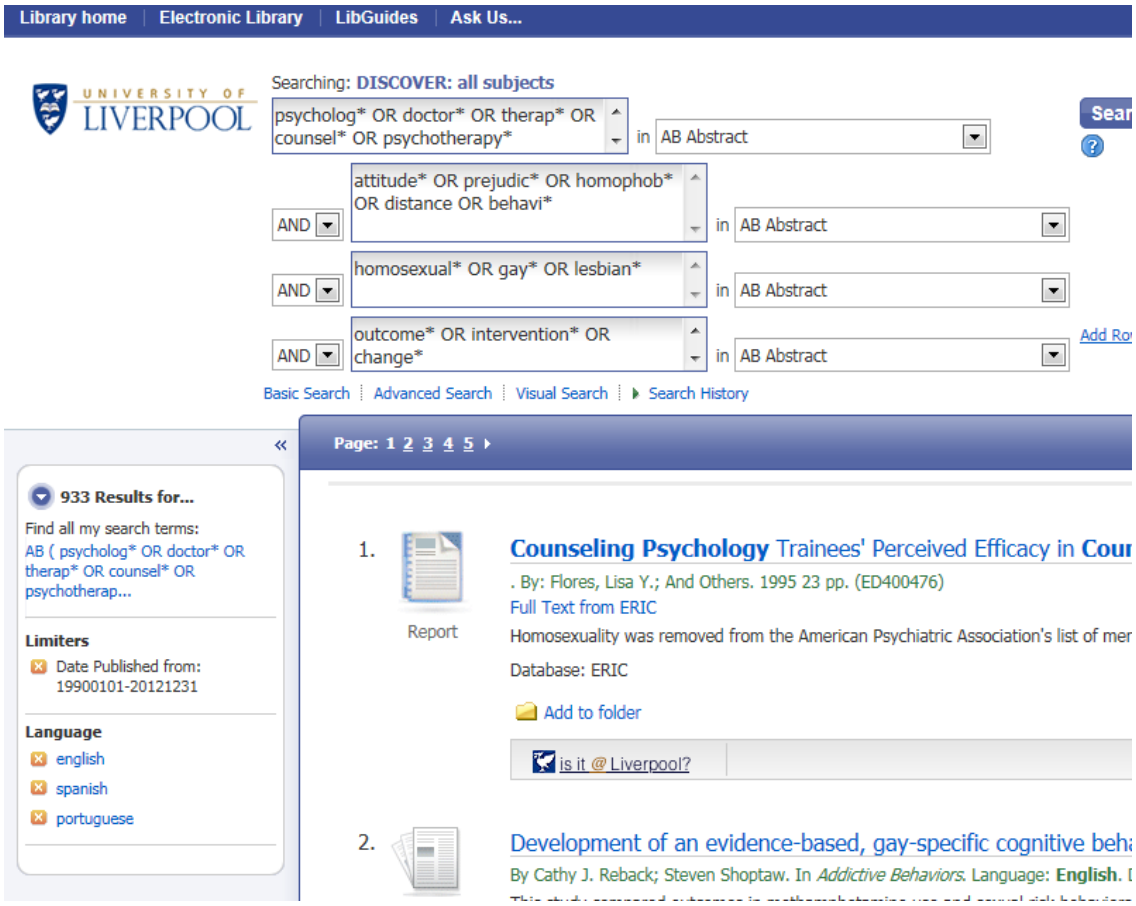
Sample table of current acceptance of homosexuality and LGBT rights worldwide*

	Country	Existing Anti-discrimination law for Sexual orientation	Same-sex activity is legal	Same-sex marriage or partnerships is allowed	Recognition of gender identity and expression needs, including legal gender change	Adoption by LGBT individuals or couples
Completely supportive (and protective)	South Africa	☑	☑	☑	☑	☑
	Canada	☑	☑	☑	☑	☑
	Netherlands	☑	☑	☑	☑	☑
	Spain	☑	☑	☑	☑	☑
	Portugal	☑	☑	☑	☑	☑
	Norway	☑	☑	☑	☑	☑
	Iceland	☑	☑	☑	☑	☑
Partially supportive	Nepal	☑	☑	☒	☑	☒
	United States of America	☑☒	☑	☑☒	☑☒	☑☒
	Mexico	☑	☑	☑☒	☑☒	☑☒
	Brazil	☑☒	☑	☑☒	☑	☑
	Greece	☑☒	☑	☒	☑	☒
	Australia	☑	☑	☑☒	☑	☑☒
	Israel	☑	☑	☑☒	☑	☑
Completely opposing	Uganda	☒	☒	☒	☒	☒
	Trinidad and Tobago	☒	☒	☒	☒	☒
	Samoa	☒	☒	☒	☒	☒
	Malaysia	☒	☒	☒	☒	☒
	Afghanistan	☒	☒	☒	☒	☒
	Syria	☒	☒	☒	☒	☒
	Kuwait	☒	☒	☒	☒	☒

*This table was correct as of 2nd November 2012, but world laws change constantly and homosexuality as a legal activity is being revised all the time; while some countries are completely protective or partially supportive of this diverse sexual orientation, other countries have a criminalisation movement to ban it or eradicate it from their geographical (state) borders. Information taken from ILGA (2011; 2012) and their current website **www.ilga.org**.

Appendix 1.C

Printout of initial literature search



year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
et al., 2003, USA	200 doctoral students enrolled in full-time Clinical Psychology programmes, from several theoretical orientations % Female: 70.5 Average age: 28.5 (22-50) Ethnicity: 83.5% Caucasian 2.5% Hispanics 8% Asian Americans 2.5% African Americans 2% Pacific Islanders Sexual orientation: 91.5% Heterosexual 8.5% "GLB orientation" Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Paper Survey sent to participants, for single data collection point. No randomisation of participants. No control group. Comparison of group by gender of participants post hoc as covariate. Measures piloted prior to study.	• Demographics adapted from Buhrke (1989); • Attitudes to working with LGB clients (Davidson & Wilson, 1973); • Attitudes toward Lesbians and Gay men – short version (ATLG; Herek, 1988; 1994; Herek & Glunt, 1993). • Reliability reported. • Citation given for psychometric properties of short or long scale.	• The majority of participants felt inadequately trained to be effective with LGB clients, and would benefit from more training on Sexual Orientation Issues (SOI). • Lower level of helpfulness of supervision on SOI relative to therapy in general. • High levels of comfort in addressing sexuality and SOI in therapy. • Participants held more positive attitude than the general population • No gender effects found, on whether males held more negative attitudes towards LGB people than females
y et al., 1995, UK	69 Chartered Clinical Psychologists in clinical practice for an average of 12.7 years % Female: 65.2 % Male: 34.8 Average age: 41.4 Ethnicity: Not reported Sexual orientation: 95.6% Heterosexual 2.9& Lesbian 1.4% Bisexual Religion: Not reported Prior training in LGB issues: 97% said No Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Paper Survey sent to participants, randomly selected through the British Psychological Society list of chartered psychologists. Single data collection point. No control group and no comparison group.	• Adapted ATLG (Herek, 1984) • Reliability reported.	• Limited exposure to specific training on lesbian issues. • Exposure to lesbian lifestyles and degree of participants religiosity were significant predictors of attitudes to lesbians and lesbianism; for instance, high exposure to lesbian culture and low religiosity lead to positive attitudes. • No other significant findings on gender, age, and contact with lesbian clients.
et al., 2002, USA	162 Trainee Counselling Psychologists at MSc and Doctoral level % Female: 75% % Male: 25% Average age: 32.2 (22-55) Ethnicity: 88% Caucasian 2% Latino(a) 2% Asian American 2% African American 2% Native American 1% Pacific Islander 3% Other Sexual orientation: N=153 Heterosexual N=6 Bisexual N= 2 Gay N= 1 Lesbian Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: 35-69% of people Average hours of clinical contact with LGB people: Not reported	Selection of trainees via course Programme Directors. No randomisation specified. Allocation to one of the four group conditions (sexual orientation vs client gender) to respond to a paper-based case scenario vignette. No blinded reported. Completion of pack of measures with vignette, no counterbalance mentioned.	• Case scenario vignettes. No further description of scenarios or their development given. • Adjective Check List, two subscales: Favourable Items Checked and Unfavourable Items Checked (ACL; Gough & Heilburn, 1980) • Index of Homophobia (IHP; Hudson & Ricketts, 1980). • Reliability and citation for psychometric properties partially reported.	• Higher homophobia scores significantly predicted assignment of unfavourable adjectives to clients. • Gay men and lesbian clients received less unfavourable adjectives than heterosexual clients. • Lesbian clients received more unfavourable adjectives than gay men clients, by participants scoring higher in the homophobia scale. • Participants scoring higher in homophobia scores assigned less favourable adjectives to gay and lesbian clients than those who had the heterosexual condition. • No gender difference in assignment of unfavourable adjectives. • However, male participants scoring higher on homophobia would assign more unfavourable adjectives than female participants. • Participants with more social contact with gay men and lesbian had lower homophobia scores.

(continued)

year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
2001, USA	139 Licensed Counselling and Clinical Psychologists APA members at MSc and Doctoral level N Females: 91 N Males: 48 Average age: 39.6 (24-76) Ethnicity: 87.1% Caucasian 4.3% Hispanic/Latino(a) 0.7% Asian American 3% African American 0.1% Native American 2.2% Other Sexual orientation: 65.5% Heterosexual 13% Bisexual 8% Gay and Lesbian Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average clinical contact with LGB people: 13.9%	Random selection of participants through APA listings, allocated to one of the four group conditions (sexual orientation vs client gender) to respond to a paper-based case scenario vignette. Completion of pack of measures with vignette, counterbalance not reported. No blinded reported.	• Case scenario vignettes, limited details of development. Provided as appendices. • Clinical Impressions Questionnaire, developed for the study to accompany case vignette. No reliability provided. Description of measure development reported. • ATLG (Herek, 1984, 1988, 1994) • Kinsey Scale (Kinsey et al., 1948) to measure participants SO in a continuum. • Reliability and citation for psychometric properties partially reported.	• Overall positive attitudes toward gay men and lesbians in both male and female participants. • There was a gender difference in that women's attitudes toward gay men were more positive than men's. No significance in attitudes toward lesbians. • Contrary to predictions, heterosexual clients were rated as having worse outcome and prognosis from therapy. • Heterosexual clients were more likely given a diagnosis of depression, while gay men and lesbian clients were more likely given a diagnosis of adjustment disorder.
et al., 2005, USA	303 Licensed Psychologists APA members MSc and Doctoral level N Females: 122 N Males: 40 Average age: 53.6 (30-91) Ethnicity: 96.4% White 1.3% Hispanic/Latino(a) 0.7% Asian American 1% African American 0.4% Other Sexual orientation: 49.5% Heterosexual Women 44.9% Heterosexual Men 2.6% Lesbians 2% Gay Men 0.6% Bisexual Men 0.3% Bisexual Women Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Random selection of participants through APA listings, allocated to one of the six group conditions (sexual orientation vs client gender) to respond to a paper-based case scenario vignette. Completion of pack of measures with vignette, counterbalance was reported. No blinded reported. Incentive for participation reported to give money to charity.	• Case scenario vignette, developed for the study. Limited details provided. • Semantic Differential (Osgood et al., 1957) to measure attitudes to vignette client. • Self-Attribution Scale (SAS; Karuza, Zevon, Gleason, Karuza, & Nash, 1990). • Global Assessment of Functioning (GAF; American Psychiatric Association, 1994). • Treatment process and outcomes expectations measure, developed for study. Description and rationale of item provided. • Reliability and citation for psychometric properties partially reported.	• Female psychologists held more positive attitudes and treatment expectations for clients than did male psychologists. • Some psychologists held inconsistent attitudes toward female clients generally and lesbian, gay, and bisexual clients in particular. • Continuing education and consultation are recommended to increase psychologists' awareness of gender and sexual orientation issues and potential influences in treatment.
et al., 2008, USA	105 Trainee Counselling Psychologists at MSc and Doctoral level % Female: 75 Average age: Not reported Ethnicity: Reported by group as follows 75-90% European American 4-8% Hispanic 4-15% African American 2% Other 2-6% Asian American Sexual orientation: 87-90% Heterosexual 11% Bisexual 2-10% Homosexual Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average clinical contact with LGB people: 1 to 3 clients	Paper measures (explicit and implicit) given to participants in-vivo. Strategic sampling from courses addressing multicultural competencies. Debriefing of participants post-completion of measures. Single data collection point. No control group. Several group comparisons for covariates.	• Multicultural Competency (CCRI-R; Worthington, Mobley, Franks & Tan, 2000), measuring multicultural awareness, knowledge, and skills. Reliability reported. • Implicit Attitudes Test – IAT, paper version (Lowery, Harding & Sinclair, 2001). Two versions reported: Ethnicity IAT and Sexual Orientation IAT. • Citation given for psychometric properties.	• Implicit negative bias toward gay and lesbian people and ethnic minority people was present among trainees despite high self-reported (explicit) multicultural competency. • Self-reported multicultural competency varied by training level, but implicit bias did not. • The results suggest that implicit bias is a separate construct from explicit bias, and can add to the understanding, assessment, and training of multicultural therapist competency.

(continued)

year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
2009, USA	296 Licensed Clinical and Counselling Psychologists APA members at Doctoral level % Female: 66.6 % Male: 33.4 Average age: 54.5 Ethnicity: 100% White (selection bias) Sexual orientation: 100% Heterosexual (selection bias) Religion: Not reported Prior training in LGB issues: some reported as multicultural training Personal contact with LGB people: Not reported Average clinical contact with LGB people: 7.5% caseload	Selection of participants through APA listings, allocated to one of the two group conditions (sexual orientation of client) to respond to a paper-based case scenario vignette. Completion of pack of measures with vignette, counterbalance was reported. No blinded reported. No randomisation reported.	• Case scenario vignettes, adapted from Williams (2007). Brief description of development and validation for study. • Initial Client Impressions Inventory-Revised (ICII-R; ICII; Gushue, 2004). • Clinical Judgment Scale (CJS; Houts & Galante, 1985) • Lesbian, Gay, Bisexual Knowledge & Attitudes Scale for Heterosexuals (LGB-KASH; Worthington et al., 2005), adapted for current study to remove 'bisexual' component. • California Brief Multicultural Competence Scale (CBMCS, Gamst et al., 2004). • Reliability and citation for psychometric properties partially reported.	• Significant relationship between therapists' attitudes toward lesbians and gay men, their level of multicultural competency and their rating on prognosis for gay client. • Therapists' level of sensitivity and responsiveness and their degree of internalised affirmativeness significantly predicted prognosis ratings. • No differences in clinical judgement based on sexual orientation of client, however when associated with therapists level of affirmativeness there were significant findings on negative clinical judgement for therapists who had lower levels of affirmativeness. • For heterosexual therapists, their level of multicultural competence significantly predicted their attitudes toward gay men and lesbians.
l., 2008, Australia	7 Trainee Clinical Psychologists % Female: 100% Average age: 31.63 (23-53) Ethnicity: Not reported Sexual orientation: Not reported Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Pretest-posttest one week before the workshop and one month after the workshop. Description of training contents given. Attrition not reported. Strategic sampling. Baseline data reported. Pre- to post-workshop significance levels reported. No group comparison. No control group. No blinded reported.	• Index of Attitudes Towards Homosexuals (IATH, Hudson & Rickets, 1980). • Homophobic Behaviour of Students Scale (HBBS, Van de Ven et al., 1996) • Sexual Orientation of Counselor Competency Scale (SOCCS, Bidell, 2003). • Knowledge about Homosexuality Questionnaire (KAHQ, Harris, Nightengale & Owen, 1995). • Case scenario with follow-up questions developed for this study. • Reliability reported for all measures.	• Attitude scores were positive at both time points, no significant change after training. • Behavioural intention to act affirmatively (i.e. achieve a goal to interact or support LGB issues) was positively high at baseline and increased after training. • Participants felt comfortable and willing to work with LGB clients. • Cultural competence scores were lower at baseline and increased after training, in particular for skills and knowledge scores. Awareness was consistently high. • Knowledge of LG behaviours, myths, rights and legal protection were moderate at both points but significantly increased. • Participants scored low in identifying heteronormative practice in clinical psychology case scenarios at both points, no change after training. Showing limited ability to apply theoretical and philosophical approaches to clinical practice.
t al., 2003, USA	48 Trainee Clinical Psychologists at Doctoral level, and Forensic Psychologists at MSc level % Female: 75 Average age: 25 (22-54) Ethnicity: 78% Caucasian Sexual orientation: Not reported Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average clinical contact with LGB people: Not reported	Pretest-posttest at start of Session 1 and end of Session 2, 6 months apart. Description of training contents given. Attrition not reported. Strategic sampling. Baseline data reported. Some baseline data reported as collected retrospectively. Pre- to post-workshop significance levels not reported. No group comparison. No control group. No blinded reported.	• Subjective behavioural measure, using 'I intend…' statements, to measure outcome of intentions to act affirmatively. No further details given about development of this tool. • Riddle Homophobia Scale (Wall, 1995). • Break down percentages of responses. No inferential data analysis provided. • No reliability reported.	• 86.9% of participants achieved two or more behavioural intent actions, as measure by 'I intend…' statements after attending training. • Ratings of attitudes were positively high at baseline and after training. • Negative attitude levels reduced, and positive attitudes increased, from baseline to post-training. • No statistically significant findings on these changes.

(continued)

year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
et al., 1995, USA	68 Trainee Clinical and Counselling Psychologists at MSc and Doctoral level N Females: 48 N Males: 20 Average age: Not reported Ethnicity: 38 White 7 Asian 18 Black 5 Latino(a) Sexual orientation: Not reported Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average clinical contact with LGB people: Not reported	Random allocation to one of the four group conditions (sexual orientation vs actress type) to view a video-taped simulated client and interact with the taped client at specific points as per instructions from researcher. Completion of pack of measures prior to allocation, no counterbalance mentioned. No blinded reported.	• Daly Attitude Scale – LG (Daly, 1990). • Countertransference Factors Inventory (CFI; Hayes, Gelso, VanWagoner, & Diemer, 1991; VanWagoner et al., 1991). • Video vignettes. Development reported for the study. • Cognitive Measure of Recall (Hayes & Gelso, 1993). • Approach-Avoidance Measure (Bandura et al., 1960) adapted by Hayes and Gelso (1993) and Latts and Gelso (1995). • State-Trait Anxiety Inventory (STAI-S; Spielberger et al., 1970). • Overinvolvement scale (Hayes & Gelso, 1993). • Reliability and citation for psychometric properties partially reported.	• Overall lower levels of homophobia amongst sample and compared to normative data. • Therapists did not exhibit more countertransference with a lesbian client than they did with a heterosexual client. • The greater the therapist's homophobia towards gay and lesbian clients the more avoidant behaviour displayed in the lesbian condition • Female therapists had greater recall problems and errors than male therapists with the lesbian client exploring her sexual difficulties with her partner, whereas male and female therapists had equivalent recall with the heterosexual client. • Therapists with greater skills in managing their countertransference and anxiety in therapy displayed reduced anxiety when interacting with the lesbian client. • Therapists also became more overinvolved and overactive in therapy when discussing sexual issues with clients of any sexual orientation, thus allowing own needs to take precedent of clients' needs.
2000, Australia	43 Qualified Psychologists; 17 Trainee Psychologists and 44 undergraduate student psychologists, from several theoretical orientation N Female Qualified: 28; N Males: 15 N Female Trainee: 12; N Males: 5 N Female undergrad: 34; Males: 10 Average age: Not reported Ethnicity: Not reported Sexual orientation: 16% "as not exclusively heterosexual" Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Paper Survey sent to participants, selected through phone directories (qualified psychologists) and through course programmes (students). Some surveys were posted (to qualified psychologists), others given in-vivo (to students). Single data collection point. No control group. Group comparisons reported.	• Modified Attitudes Toward Homosexuality Scale (MATHS, Price, 1982); • Affective Reactions to Homosexuality Scale (ARHS, Van de Ven, Bornholt & Bailey, 1996); • Homophobic Behavior of Students Scale (HBSS, Van de Ven, Bornholt & Bailey, 1997). • Reliability reported. • Citation given for psychometric properties of scale.	• Undergraduate students significantly more homophobic that qualifies psychologists in their thinking, intentional behaviour, and feelings of fear or discomfort towards homosexuals. • Males significantly more homophobic than females on fear ort discomfort towards homosexuals. • Gay males incurred more negative responses on fear and discomfort than lesbians. • No other group significances reported.
& Deluty, 1995,	139 doctoral-level Licensed Psychologists, trained either prior to 1970, post-1978 or in between. N Females: 69 N Males: 70 Average age: Not reported Ethnicity: Not reported Sexual orientation: 89% Heterosexual 2.9% Bisexual 5.8% Gay or Lesbian 1.4% Other Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Random selection of psychiatric and mental health services. Paper Survey sent to services to be distributed to qualified psychologists. Single data collection point. No control group.	• Pre-normed survey developed by authors for the study to assess attitudes towards homosexuality and the promotion of aversion therapy to change sexual orientation. • No reliability or validity reported. • No description of how tool was developed and where it was piloted. • Survey in articles as appendix.	• No participants claimed using aversion therapy to change sexual orientation. • 5.8% of clinicians would promote aversion therapy to change Sexual Orientation (SO) of clients. • 11% would use other methods to change sexual orientation of clients. • Therapists who viewed gay or lesbian lifestyle as 'unacceptable' were more likely to support use of aversion therapy, or other alternative therapy, to change the SO of clients.

(continued)

year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
e et al., 2005, USA	437 doctoral-level Licensed Psychologists, APA members. % Female: 54.2 % Male: 45.8 Average age: several age categories reported Ethnicity: 96.1% White 0.2% Asian 1.8% Hispanic 0.7% Black 1.2% Not reported Sexual orientation: 88.6% Heterosexual 3.9% Bisexual 6.6& Homosexual 0.9% Not reported Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Paper Survey sent to participants, randomly selected through the American Psychological Association Office of Research. Single data collection point. No control group and no comparison group.	• Pre-normed survey developed by Jordan & Deluty (1995) to assess attitudes towards homosexuality and the promotion of aversion therapy to change sexual orientation. • No reliability reported.	• Psychologists more likely to view an active LGB lifestyle–identity as acceptable and non-pathological, and more likely to support and provide gay-affirmative therapy, and much less likely to support changing sexual orientation through psychotherapy. • Female psychologists significantly more likely to view a LGB lifestyle as accepting and to provide gay-affirmative therapy to LGB clients compared with their male counterparts. • Training opportunities for psychologists involving LGB issues appear to be increasing.
ıge et al., 2006,	70 Trainee Psychologists at MSc and Doctoral-level in Clinical, Counselling and Educational programmes N Females: 45 N Males: 25 Average age: 29.08 (22-57) Ethnicity: 80% Caucasian 2.9% Hispanic 4.3% African American 10% Other 2.9% Asian American Sexual orientation: 100% Heterosexual Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Paper Survey given in-vivo to participants attending a psychology programme. No randomisation reported. Counterbalancing of measures reported. Research ethics reported. Single data collection point. No control group. Gender compared as covariate.	• ATLG – long version (Herek, 1998). • Balanced Inventory of Desirability Responding (BIDR, Paulhus, 1984, 1991). • Attitudes Toward Women Scale (ATW, Spence & Helmreich, 1978) • Reliability reported. • Citation given for psychometric properties of scale.	• No gender effects on attitudes towards gay men. • Female and male participants had more negative attitudes towards gay men that toward lesbians. • Viewing and endorsing traditional gender roles were more likely to predict negative attitudes toward gay men and lesbians, and not due to social desirability.
ın, 2002, USA	71 Licensed Psychologists APA members Doctoral level N Females: 32 N Males: 39 Average age: 56.10 (34-85) Ethnicity: N=62 White N=4 Native American N=4 Mixed ethnicity N=1 Not reported Sexual orientation: N=63 Exclusively Heterosexual N=1 Mainly Heterosexual N=1 Bisexual N=1 Mainly Homosexual N=3 Not reported Religion: N=30 Jewish N=11 Agnostic N=3 Quaker N=3 Roman Catholic N=2 Buddhist N=2 Unitarian N=2 African Episcopal N=12 Other Prior training in LGB issues: Not reported Personal contact with LGB people: More than 1 friend 87.5%, average 5 LGB people per participant Average hours of clinical contact with LGB people: Not reported	Selection of participants through APA listings, randomly allocated to one of the two group conditions (sexual orientation of client) to respond to a paper-based case scenario vignette and session transcript. Completion of pack of measures with stimuli materials, counterbalance not reported. No blinded reported.	• Case scenario vignettes developed for study, briefly described. • Session transcripts developed for study, briefly described, to accompany vignettes and used to allocate interventions for clients at specific positions in text. • Kinsey Scale (Kinsey et al., 1948) modified for study. • Global Assessment of Functioning (GAF; American Psychiatric Association, 1994) to allocate diagnosis to participants. • Structural Analysis of Social Behaviour (SASB; Humphrey & Benjamin, 1989) used as observational coding protocol for responses in transcripts. • Daly Attitude Scale – LG (Daly, 1990), used Gay subscale only. • Three distracter measures described. • No reliability reported. • Citation for psychometric properties reported.	• No evidence of clinicians acting more disaffiliative to either gay or heterosexual vignette client. • No evidence of links between negative attitudes to gay males and disaffiliative communication in interventions with gay patients. • No evidence of clinicians assigning lower GAF score or levels of functioning due to sexual orientation of clients. • Homophobia increase did not significantly impact on GAF scores to either gay or heterosexual clients. • Psychologists in the gay condition used more 'nurturing and protecting' interventions that participants in heterosexual condition. • Participants in heterosexual condition would use interventions encompassing as 'affirming and understanding' than those in gay condition.

(continued)

year,	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
t al., 2010,	190 Trainee family therapists at MSc and Doctoral level % Female: 76.3 Average age: 29.82 (21-61) Ethnicity: 81.1% White Sexual orientation: 88.4% Heterosexual Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: 22.34 (SD=114.66)	Online Survey sent via email to participants, via Programme Directors, attending a psychology course. No randomisation reported. Counterbalancing of measures reported. Research ethics reported. Single data collection point. No control group. Several group comparisons for covariates.	• Sexual Orientation Counselor Competency Scale – modified (SOCCS; Bidell, 2005). Changes in tool reported. • Affirmative Training Scale (ATS). Developed for this study. • Reliability reported for both scales. • Citation given for psychometric properties of SOCCS.	• Participants reported feeling only somewhat competent to work with LGB clients. • Less than half reported receiving any training on affirmative therapy. • The majority of the participants did appear to hold positive attitudes toward LGB clients. • Level of affirmative training was directly related to participants' self-reported clinical competency working with LGB clients.
2008, USA	37 Trainee Clinical Psychologists at Doctoral level from 1st to 3rd year of programme Gender: Not reported Average age: Not reported Ethnicity: Not reported Sexual orientation: 89.19% Heterosexual 8.11% Bisexual 2.7% Not reported Religion: Not reported Prior training in LGB issues: 29.7% of participants Personal contact with LGB people: Not reported Average clinical contact with LGB people: Not reported	Pretest-posttest over three workshops. Data collected at start of initial two workshops and at the end of last workshop, covering a period of 6 months. Description of training contents given. Attrition not reported. Strategic sampling. Baseline data reported. Pre- to post-workshop significance levels reported. No control group. No blinded reported.	• Subjective behavioural measure, using 'I intend…' statements, to measure outcome of intentions to act affirmatively (Finkell et al., 2003). • Lesbian, Gay, Bisexual Knowledge & Attitudes Scale for Heterosexuals (LGB-KASH; Worthington et al., 2005), adapted for current study to include ''Transgender' component, despite caution from scale authors. • Riddle Homophobia Scale (Wall, 1995), modified to include 'Transgender' component. • Several workshop satisfaction measures described. • No reliability reported. • Citation for psychometric properties reported.	• There were no changes in attitude levels and knowledge towards LGBT populations when accounting for stage of study in the clinical course in heterosexual participants. • Heterosexual clients had significantly lower knowledge about LGBT issues than non-heterosexuals. • 61.9% of participants attending at least two of three workshops achieved two or more behavioural intent actions, as measure by 'I intend…' statements after attending training. • Attitudes toward LGBT people were generally positive prior to training but significantly increased from time 1 to time 2 but not from time 1 to time 3. • There was a significant increase in scores in Knowledge and Internalised affirmativeness subscales. • There was a significant reduction in Religious conflict scores, and participants reported less intrapersonal conflict (with respect to LGBT affirmativeness) from pre- to post-training. • Hate scores were generally low overall, and attitudes to civil rights were generally positive overall.
zzi et al., 2011,	83 Gay and Bisexual clients; 33 Counselling and Clinical Psychologists at MSc and Doctoral level % Male: 100 Average age: Clients 32.96 (18-56); Psychologists 35.51 (24-54) Ethnicity: Reported by group as follows 21-34% Caucasian 4-16% Hispanic/Latino(a) 5-18% Asian American 5-19% African American 2.2% Other Sexual orientation: Reported by group Client: Gay 83%; Bisexual 17% Psychologist: Gay 12%; Bisexual 4%; Heterosexual 19% Religion: only reported for clients 42% Roman Catholic 7% Baptist 13% Protestant 4% Buddhist 9% Christian 8% None/Other 8% Jewish Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average clinical contact with LGB people: Not reported Clients problem reported: 36% relationships; 16% anger; 14% family; 11% depression; 10% identify, 6% work	Clinics and sites selected strategically serving sexuality diverse clients. Psychologists asked to take part and also randomly select a sample of their caseload of male gay clients to take part. Paper survey given to both psychologist and clients, for evaluation of therapeutic relationship and outcome. Minimum of five completed therapeutic sessions required to take part. Measures were counterbalanced in each pack for each client. No control group.	• Miville-Guzman Universality-Diversity Scale – Short Form (M-GUDS-S; Fuertes et al., 2000). • Working Alliance Inventory – Short version (WAI-S; Tracey & Kokotovic, 1989) • Session Evaluation Questionnaire (SEQ; Stiles & Snow, 1984). • Counselling Outcome Measure (COM; Gelso & Johnson, 1983). • Reliability reported for both scales.	• Clinician's level of diversity orientation was positively and uniquely associated with client ratings of the working alliance, session depth, and session smoothness. • Perceived sexual orientation similarity was not directly related to any of the clinician-related criterion variables. • When therapists reported low levels of diversity orientation, perceived similarity was negatively associated with the client-rated alliance and perceived improvement. • Client religious commitment—a control variable in all analyses—was uniquely and negatively associated with client ratings of perceived improvement in therapy.

(continued)

Appendix 1.D

Summary of studies' characteristics (continued)

year, country	*Population characteristics*	*Methodologies*	*Measures and instrumentation*	*Key findings*
2008, USA	73 Licensed and 196 Trainee School Psychologists % Female: 88.2 % Male: 11.8 Average age: Several categories reported (20-65) Ethnicity: 81.5% White 8.5% Hispanic 3.3% Asian 4.8% African American 1.8% Other Sexual orientation: 100% Heterosexual (selection bias) Religion: Not reported Prior training in LGB issues: Not reported Personal contact with LGB people: Not reported Average hours of clinical contact with LGB people: Not reported	Online Survey sent via email to participants, requested through Programme Directors and other serve-lists for qualified psychologists. No randomisation reported. Counterbalancing of measures not reported. Single data collection point. No control group. Several group comparisons for covariates.	• LGB-Knowledge and Attitudes Scale for Heterosexuals (LGB-KASH; Worthington et al., 2005). • Multidimensional measure of Religiousness/Spirituality (MMRS; Stewart & Koeske, 2006) • Modern Homonegativity Sale for Lesbians and Gay men (MHS; Morrison & Morrison, 2002). • Attitudes Toward Women Scale – short version (AWS; Spence et al., 1973) • Social Interaction and Personal Contact with Gays (Herek & Capitanio, 1996). • Reliability and psychometric properties partially reported.	• Females significantly more willing to grant civil rights to LGB people that were males. • Men significantly lower internalised affirmativeness that females. • Men significantly more homonegative then females. • Qualified psychologists more knowledgeable about LGB history and with less religious conflict than trainees. • Religiosity as predictor of negative attitudes toward LGB people. • Social contact with LGB people as moderator for attitude change.

cales: ATLG – Attitudes toward Lesbians and Gay Men;
IHP - Index of Homophobia;
IAT - Implicit Attitudes Test Sexual Orientation
LGB-KASH - Lesbian, Gay, Bisexual Knowledge & Attitudes Scale for Heterosexuals;
IATH - Index of Attitudes Towards Homosexuals;
HBBS - Homophobic Behaviour of Students Scale;
KAHQ - Knowledge about Homosexuality Questionnaire;
RHS - Riddle Homophobia Scale;
DAS-LG - Daly Attitude Scale Lesbians and Gay Men;
MATHS - Modified Attitudes Toward Homosexuality Scale;
ARHS - Affective Reactions to Homosexuality Scale;
MHS - Modern Homonegativity Sale for Lesbians and Gay men.

Appendix 1.E

Brief description of self-reported attitude measures

	Study	Brief Description
ward Lesbians ı' (ATLG)	Anhalt et al. (2003); Annesley et al. (1995); Korfhage (2006); Blount (2002)	The ATLG measures attitudes in two separate subscales, which can be combined for an overall attitude score. There are longer and shorter versions, and scale items are typically accompanied by a 5-, 7-, or 9-point Likert-type scale. Higher scores represent more negative attitudes. Herek (1988) reported good internal consistency with alpha coefficients of > .90 for the ATLG or sub-measures. Test-retest reliability (rs > .80) has also been shown from alternative scale formats (Herek, 1988, 1994).
ıy, Bisexual & Attitudes Scale xuals' (LGB-	Clarke (2010); Scher (2009); Wolf (2009)	The tool measures combined levels of attitudes in five factors: 'hate', 'knowledge', 'civil rights', 'religious conflict' and 'internalised affirmativeness', which produce independent scores. Scoring is achieved on a 6-point Likert-type scale. The 'hate' subscale focuses on self-consciousness, hatred, violence and avoidance toward LGB people. The 'knowledge' subscale assesses basic understanding about LGB history, movements, organisations, and symbols. The 'civil rights' subscale measures beliefs about marriage, parenting, healthcare and insurance benefits for LGB people. The 'religious conflict' scale assesses beliefs and ambivalence toward LGB people from a religious viewpoint. Finally, the 'internalised affirmativeness' subscale measures motivation to engage positively in LGB social movements, including social networking with LGB individuals. For 'hate' and 'religious conflict' higher scores represent negative attitudes towards LGB people; however, for the remaining subscales higher scores represent more positive attitudes towards LGB people. Each subscale has demonstrated high internal consistency (alpha values from .73 to .88) and high test-retest reliability for the total scale (.76 and .90), including convergent validity with the ATLG.
ıophobia Scale'	Finkell et al. (2008); Scher (2009)	This tool measures attitudes on an 8-point ordinal scale: 1) repulsion, 2) pity, 3) tolerance, 4) acceptance, 5) support, 6) admiration, 7) appreciation, 8) nurturance, and is described in Appendix 1.E. Each of the eight points is meant to represent a level of attitude, and participants are asked to choose one of the eight options available that best describe their current position. Lower scores represent higher levels of homophobia and negative attitudes.
le Scale – Gay' (DAS-LG)	O'Brien (2003); Gelso et al. (1995)	The tool contains 32 items in two separate subscales. Higher scores for each subscale (16-80) indicate greater homophobia, on a scale from 1 to 5.
mophobia' (IHP) us the 'Index of wards s' (IATH)	Barrett et al. (2002); Fell et al. (2008)	The tool consists of 25 items presented in a Likert-scale response. The tool measures affective responses of fear, disgust, anger, discomfort and aversion toward LG people. Possible scores range from 0 to 100, indicating four categories of attitudes: "high-grade nonhomophobic" (0-25); "low-grade homophobic" (50-75); and "high-grade homophobic" (75-100). The tool can also produce a mean score. The tool is primarily concerned with a person's "comfort" around proximity to and involvement with LG people. Higher scores represent more positive attitudes
ttitudes Toward ity Scale'	Jones (2000)	This scale contains 30 items, with a 9-point Likert scale, to assess the cognitions around homophobic attitudes. Higher scores represent more negative attitudes. The Cronbach alpha internal consistency for undergraduate students is r = .96 and for high school students is r = .94 (Van de Ven, 1994).
attitude towards nen a	Jordan et al. (1995); Kilgore et al. (2005)	This tool contains 15 items questionnaire assessing attitudes towards and interventions for LG clients. In particular questions focus on using and supporting aversion therapy or other methods/interventions designed to change sexual orientation. This tool was developed by Jordan et al. (1995) and no reliability or validity data are provided.
fferential	Bowers et al. (2005)	This tool was designed to assess attitudes toward a vignette client. The scale consists of bipolar adjective pairs, each rated on a 7-point Likert scale. The 6-item Evaluative factor refers to judgments about worth or value (e.g., good/bad; valuable/worthless). The coefficient alpha was .80, considered to be good (George & Mallery, 2000). The 8-item Dynamism factor reflects judgments about power and strength (e.g., strong/weak; active/passive). The coefficient alpha for the Dynamism factor was .72, which is considered to be acceptable (George et al., 2000). The two semantic differential factors were significantly correlated (r = .438, p = .001).
ıtation Counselor Scale (SOCCS)	Rock et al. (2010)	The tool measures attitudes, skills, competency, and knowledge about working with LGB clients. Scoring is achieved on a 7-point Likerty scale, with some items being reversed scored. Bidell (2005) noted that scores below 2 represent lower competency, scores between 3 and 5 represent medium competency, and scores above 6 indicate higher competency. Participants answering at least 70% of the items are given a total SOCCS score. The measure appears to demonstrate good reliability and validity for each subscale ($\alpha \geq .76$). Bidell (2005) also reported a one-week test–retest reliability of .84, and the tool appears to have good convergent validity with other attitude measures, including the ATLG.

Appendix 1.F

Standardised scores for reviewed studies

Summary for ATLG* data

	Gender of participant	ATL M (SD)	ATG M (SD)	ATLG M (SD)
Anhalt et al., 2003	Males (*n*=59)	1.75 (.85)	2.4 (1.20)	2.08 (1.03)
(Psychologists-in-training)	Females (*n*=141)	1.89 (1.05)	2.19 (1.25)	2.04 (1.15)
Korfhage, 2006	Males (*n*=25)	2.06 (1.04)	2.46 (1.09)	2.26 (1.07)
(Psychologists-in-training)	Females (*n*=45)	1.77 (.88)	2.04 (1.08)	1.91 (.98)
Blount, 2002	Males (*n*=48)	1.66 (.98)	2.05 (1.17)	1.85 (.97)
(Licensed)	Females (*n*=91)	1.54 (.85)	1.68 (1.09)	1.69 (1.01)

** higher scores represent more negative attitudes*

Summary for LGB-KASH* data

	Comparison variable	Hate M (SD)	Knowledge M (SD)	Civil Rights M (SD)	Religion M (SD)	Affirmativeness M (SD)
Scher, 2009	Pre-test	1.19 (.37)	2.05 (.95)	5.25 (.83)	1.87 (.97)	3.62 (1.17)
(Psychologists-in-training)	Post-test	1.10 (.25)	3.17 (1.17)	5.41 (.69)	1.68 (.87)	3.93 (1.17)
	Follow-up	1.30 (.40)	3.14 (.95)	5.49 (.77)	1.48 (.56)	3.87 (1.27)
Wolf, 2009	Males (*n*=32)	1.40 (.58)	2.56 (.95)	4.79 (1.28)	2.47 (1.16)	2.81 (1.18)
(Licensed and (Psychologists-in-training))	Females (*n*=239)	1.17 (.32)	2.50 (1.16)	5.37 (.90)	2.15 (1.06)	3.56 (1.18)
	Social contact	1.14 (.30)	2.70 (1.17)	5.42 (.84)	2.04 (1.00)	3.74 (1.12)
	No social contact	1.39 (.50)	1.82 (.66)	4.89 (1.25)	2.72 (1.15)	2.52 (.98)

**Higher scores on the 'hate' and 'religion' susbscales indicate more negative attitudes; higher scores on the remaining subscales implies positivity.*

Summary for RHS* data

	Comparison variable	M (SD)
Scher, 2009 (Psychologists-in-training)	Pre-test	6.17 (1.44)
	Post-test	6.61 (1.39)
	Follow-up	6.45 (1.36)
Finkel et al.,2003	Pre-test	5.73 (.58)
(Psychologists-in-training)	Follow-up	6.27 (.32)

** higher scores represent more positive attitudes*

Appendix 1.F

Standardised scores for reviewed studies (cont.)

Summary for IHP* data

	Comparison variable	M (SD)
Barret et al., 2002	Gay male condition (N=38)	5.59 (.79)
(Psychologists-in-training)	Lesbian condition (N=44)	5.79 (.77)
	Heterosexual male (N=40)	5.77 (.64)
	Heterosexual female (N=40)	5.66 (.68)
Fell et al., 2008	Pre-test (N=7)	6.07 (.94)
(Psychologists-in-training)	Post-test (N=7)	6.12 (.85)

** higher scores represent more positive attitudes*

Summary for MATHS* data by gender and qualification level

MATHS scores	**Mean (SD)**	
Jones (2000)	**Males**	**Females**
Licensed Psychologists (N=42)	18.08 (11.89)	14.51 (11.81)
Psychologists-in-training (N=17)	21.92 (16.57)	12.43 (9.82)
Undergraduates (N=44)	25.83 (17.10)	21.69 (17.01)

** higher scores represent more negative attitudes*

Summary for DAS-LG* data

	Comparison variable	Mean (SD)
O'Brien, 2002 (Licensed)	DAS-LG total mean	22.2 (SD=7.26)
Gelso et al, 1995 (Psychologists-in-training)	DAS-LG total mean	45.1 (?)
Daly, 1990 (Undergraduates)	DAS-L males (*n*=149)	46.2 (15.8)
	DAS-L females (*n*=230)	46.8 (17.2)
	DAS-G males	52.6 (17.4)
	DAS-G females	41.3 (15.8)

** higher scores represent more negative attitudes*

Appendix 1.G

Descriptors in the Riddle Homophobia Scale (RHS)

Scale removed to comply with original copyright requirements.

Please refer to the original article:

- Riddle, D. (1994). *The Riddle scale. Alone no more: Developing a school support system for gay, lesbian and bisexual youth.* St Paul: Minnesota State Department

Appendix 2.A

Printout of Guidelines for Authors '*Journal of Consulting and Clinical Psychology*'

Guidelines are available online from: http://www.apa.org/pubs/journals/ccp/index.aspx

Appendix 2.B

Institutional Research Board Ethical approval letter

Letter removed to comply with privacy and confidentiality requirements.

Appendix 2.C

Alpha values for both studies

1. Alpha values for attitudes for both studies

Scale	Time 1	Time 2
ATL	α = .768	α = .837
ATG	α = .762	α = .831
ATLG	α = .900	α = .931
Social distance	α = .954	α = .981
IAT	α = .827	α = .775

2. Alpha values for attachment styles for both studies

Scale	Time 1	Time 2
Attachment avoidance	α = .802	α = .892
Attachment anxiety	α = .761	α = .778

3. Alpha values for observational measures for study one

Scale	Time 1	Time 2
LUCAS	α = .674	α = .648
VR-CoDES	α = .741	α = .764
SRS	α = .958	α = .804

Appendix 2.D

Information sheet for participants

Attitudes towards sexuality and clinical communication of 1st year trainee clinical psychologists.

You are being invited to participate in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and feel free to ask us if you would like more information or if there is anything that you do not understand. Please also feel free to discuss this with your friends, relatives if you wish.

Thank you for reading this.

1. What is the purpose of the study?

Researchers have identified that communication is an important factor in clinical consultations. We want to see whether the communication skills of clinical psychology students are influenced by their attitudes.

We will use an internationally developed coding scheme that codes micro behaviours (VR-CoDES) in health provider-patient consultations. For this reason we need to video record one 10-minute interview between you and a simulated client, in September 2011 and in April 2012.

This study has been reviewed and received ethical approval from the Institute of Psychology, Health and Society Research Ethics Committee.

2. Why have I been chosen to take part?

You have been invited to take part because you are currently in your first year of study for a Doctorate in Clinical Psychology, and we are inviting all of this year's first year Clinical Psychology trainees to participate.

3. What will happen if I take part?

We will video record one 10-minute interview between you and a simulated client at two time points. You will also be asked to complete some measures on attitudes towards sexuality and attachment. These measures will take approximately 15 minutes to complete.

The investigators are:
Mr Miguel Montenegro, The University of Liverpool
Dr Ian Fletcher, Lancaster University
Dr. James Reilly, The University of Liverpool
Dr. Paul Withers, Consultant Clinical Psychologist, Calderstones NHS Trust, Lancashire

Miguel Montenegro will be distributing the measures/questionnaires and will attend the video sessions.

Appendix 2.D (cont.)

4. Do I have to take part?

Participation is voluntary and you are free to withdraw at any time without giving any reason.

5. Are there any risks in taking part?

There are no perceived risks in participating in this study.

6. Are there any benefits in taking part?

You will receive individual feedback on your videoed interview with the simulated client, and a copy of your interview on a DVD for your own personal progress and reflection. This is not part of any academic evaluation as part of the Clinical Psychology Programme.

7. What if I am unhappy or there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Dr Ian Fletcher, [redacted] and we will try to help.

If you remain unhappy or have a complaint which you feel you cannot come to us with then you should contact the Research Governance Officer on [redacted]
When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

8. Will my participation be kept confidential?

Yes, at all times.
All the videos and attitudes measures will be marked with a random ID number to ensure anonymity. The videos will be kept securely stored at all times and all the information collected during this study will be kept strictly confidential. This means that only the researchers will view the videos. **No other staff involved in your training will be allowed access to the videos.**
You will not be named or identified in any reports of the study. We may include brief written quotations from interviews in future publications, but, we will always change details so that nobody can be identified.

9. Will my taking part be covered by an insurance scheme?

Participants in a University of Liverpool ethically approved study have insurance cover.

10. What will happen to the results of the study?

We intend to submit the results of the investigation for publication.

11. What will happen if I want to stop taking part?

You can withdraw from the investigation at any time without giving an explanation.

12. Who can I contact if I have further questions?
Dr Ian Fletcher, [redacted]

Appendix 2.D (cont.)

Consent Form

Title of Research Project: Attitudes towards sexuality and clinical communication of 1st year trainee clinical psychologists.

Researcher(s): M Montenegro
I Fletcher
J Reilly
P Withers

Please initial box

1. I confirm that I have read and have understood the information sheet dated 13.07.11 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. ☐

3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish. ☐

4. I agree to be videoed interviewing a simulated patient ☐

5. I agree for my videoed interview to be made available to the researchers ☐

6. I agree to take part in the above study. ☐

_____	_____	_____
Participant Name	Date	Signature

_____	_____	_____
Researcher taking consent	Date	Signature

The contact details of the lead researcher are:
Miguel Montenegro, Division of Clinical Psychology, [redacted]

Thank you very much for your time and participation

Appendix 2.E

The Attitudes Toward Lesbian and Gay Men (ATLG) scale

Scale reproduced with permission from Prof. Gregory Herek

Attitudes Toward Lesbians and Gay Men Scale, Revised 5-Item Version

Attitudes Toward Gay Men (ATG-R-S5) Subscale

1. Sex between two men is just plain wrong.*
2. I think male homosexuals are disgusting.*
3. Male homosexuality is a natural expression of sexuality in men.* (Reverse scored)
4. Male homosexuality is a perversion.
5. Male homosexuality is merely a different kind of lifestyle that should not be condemned. (Reverse scored)

Attitudes Toward Lesbians (ATL-R-S5) Subscale

1. Sex between two women is just plain wrong.*
2. I think female homosexuals (lesbians) are disgusting.*
3. Female homosexuality is a natural expression of sexuality in women.* (Reverse scored)
4. Female homosexuality is a perversion.
5. Female homosexuality is merely a different kind of lifestyle that should not be condemned. (Reverse scored)

*This item is included in the 3-item version (ATLG-R) of the subscale.

Scoring

Scoring is accomplished by assigning numerical values to the response options (e.g., for a 7-point response format, 1 = *Strongly Disagree*, 7 = *Strongly Agree*) and summing across items for each subscale. Some items are reverse scored as indicated below. For ease of interpretation, the sum of item values can be divided by the total number of items to yield a score that matches the response scale metric. The possible range of scores depends on the response scale used.

Scores on the original ATL and ATG subscales, which are based on responses to differently worded items, were not directly comparable. Researchers wishing to compare respondents' attitudes toward gay men with their attitudes toward lesbians were advised to use parallel forms of one subscale (usually the ATG items). The use of such parallel forms (with each item presented once in reference to gay men and once in reference to lesbians) is now recommended for all ATLG scale users, as shown in the Exhibit.

In: Herek, G. M. & McLemore, K. A. (2011). The attitudes toward lesbians and gay men (ATLG) scale. In T. D. Fisher, C. M. Davies, W. L. Yarber, & S. L. Davies (Eds.), *Handbook of sexuality-related measures (3rd Ed.*, pp.415-417). Oxford: Taylor & Francis.

Appendix 2.F

Experiences in Close Relationships-Short Form (ECR-S)

Scale reproduced with permission from Prof. Meifen Wei

Instruction: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Mark your answer using the following rating scale:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

1. It helps to turn to my romantic partner in times of need.

2. I need a lot of reassurance that I am loved by my partner.

3. I want to get close to my partner, but I keep pulling back.

4. I find that my partner(s) don't want to get as close as I would like.

5. I turn to my partner for many things, including comfort and reassurance.

6. My desire to be very close sometimes scares people away.

7. I try to avoid getting too close to my partner.

8. I do not often worry about being abandoned.

9. I usually discuss my problems and concerns with my partner.

10. I get frustrated if romantic partners are not available when I need them.

11. I am nervous when partners get too close to me.

12. I worry that romantic partners won't care about me as much as I care about them.

Scoring Information:

Anxiety = 2, 4, 6, 8 (reverse), 10, 12

Avoidance = 1 (reverse), 3, 5 (reverse), 7, 9 (reverse), 11

Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor structure. *Journal of Personality Assessment, 88,* 187-204.

Appendix 2.G

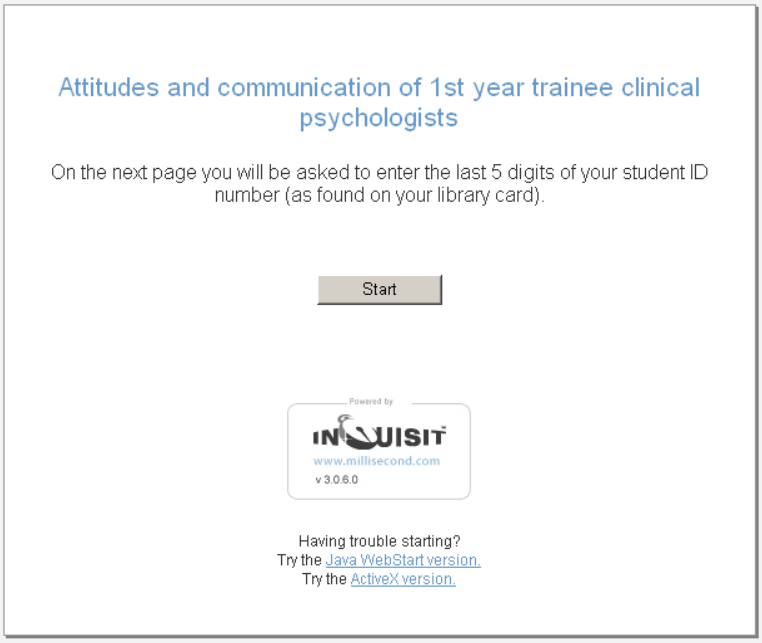
Social Distance Scale (adapted)

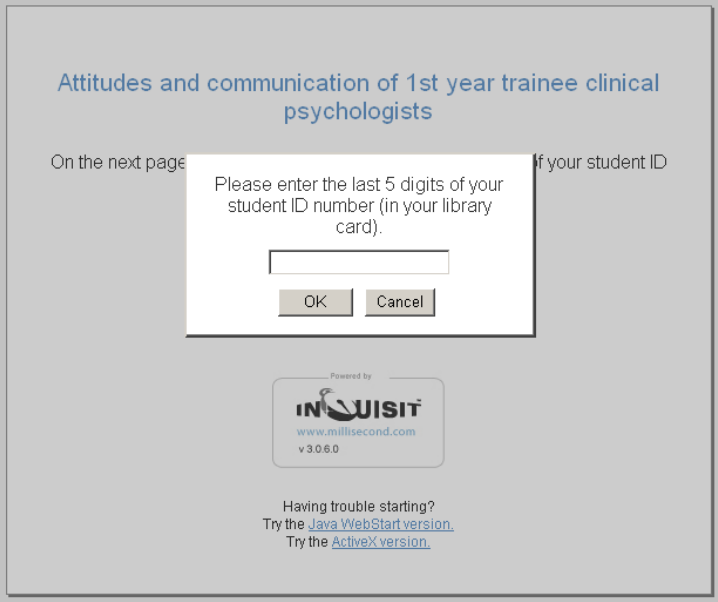
Definitely Willing	Probably Willing	Probably Unwilling	Definitely Unwilling
0	1	2	3

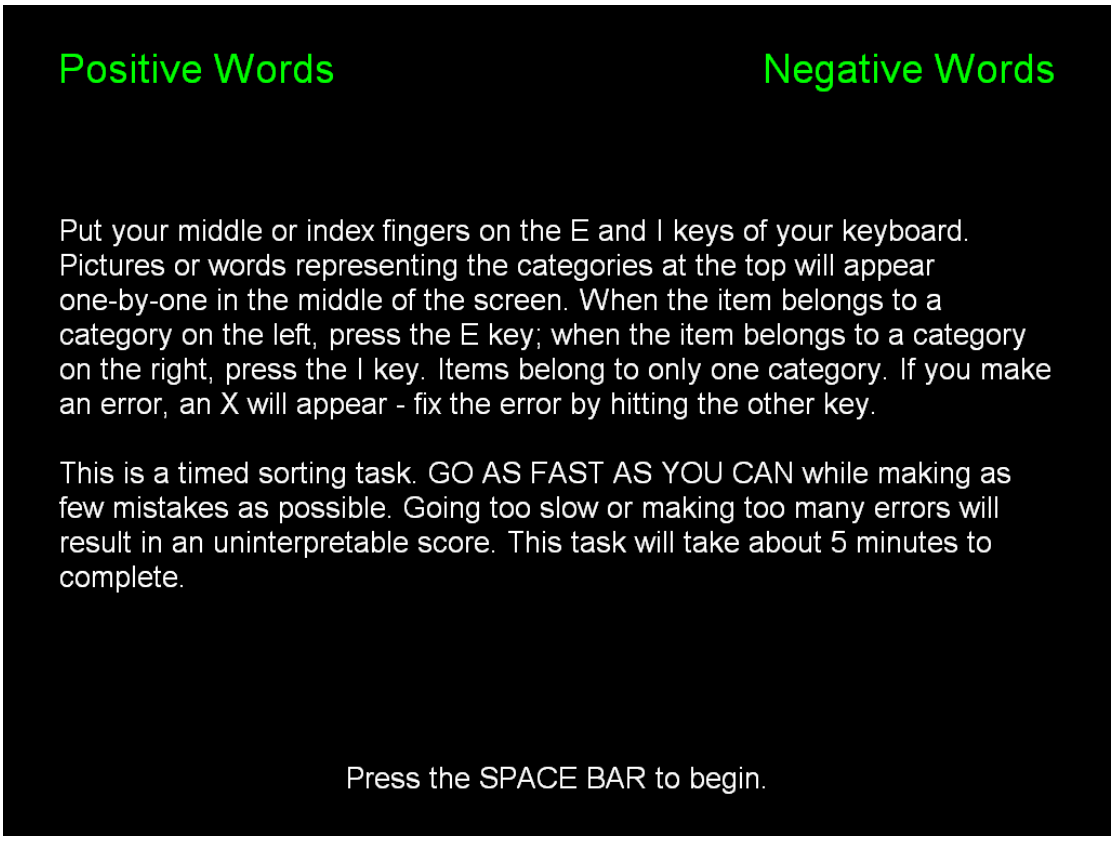
1.	How would you feel about renting a room someone who is homosexual?	
2.	How about working closely with someone who is homosexual?	
3.	How would you feel about having a homosexual person as a neighbour?	
4.	How about as the carer of your children for a couple of hours?	
5.	How would you feel about recommending a homosexual person for a job working for a friend of yours?	
6.	How would you feel about introducing a homosexual person to a friend of the opposite sex that you were friendly with?	
7.	How would you feel about introducing a homosexual person to a friend of the same sex that you were friendly with?	
8.	How would you feel about having a homosexual couple as neighbours?	
9.	How about asking them to babysit your children for a couple of hours?	

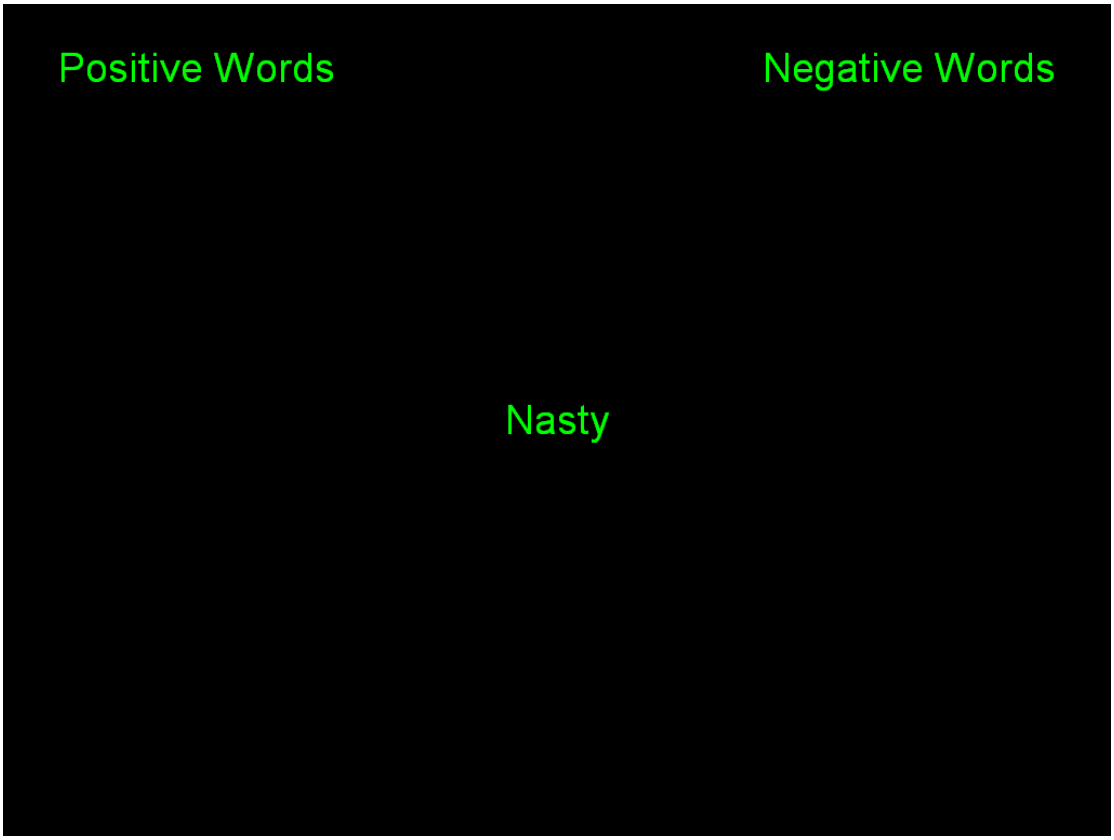
Appendix 2.H

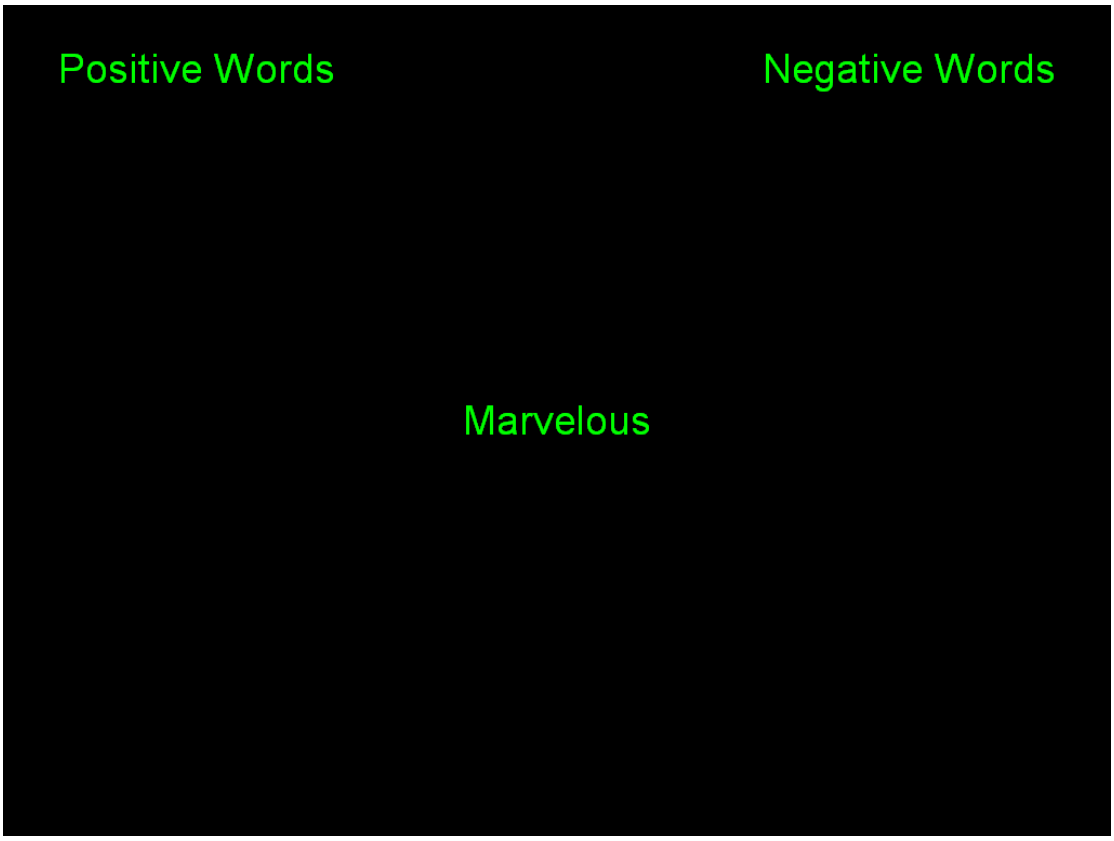
Implicit Association Test (IAT) sexuality screenshots

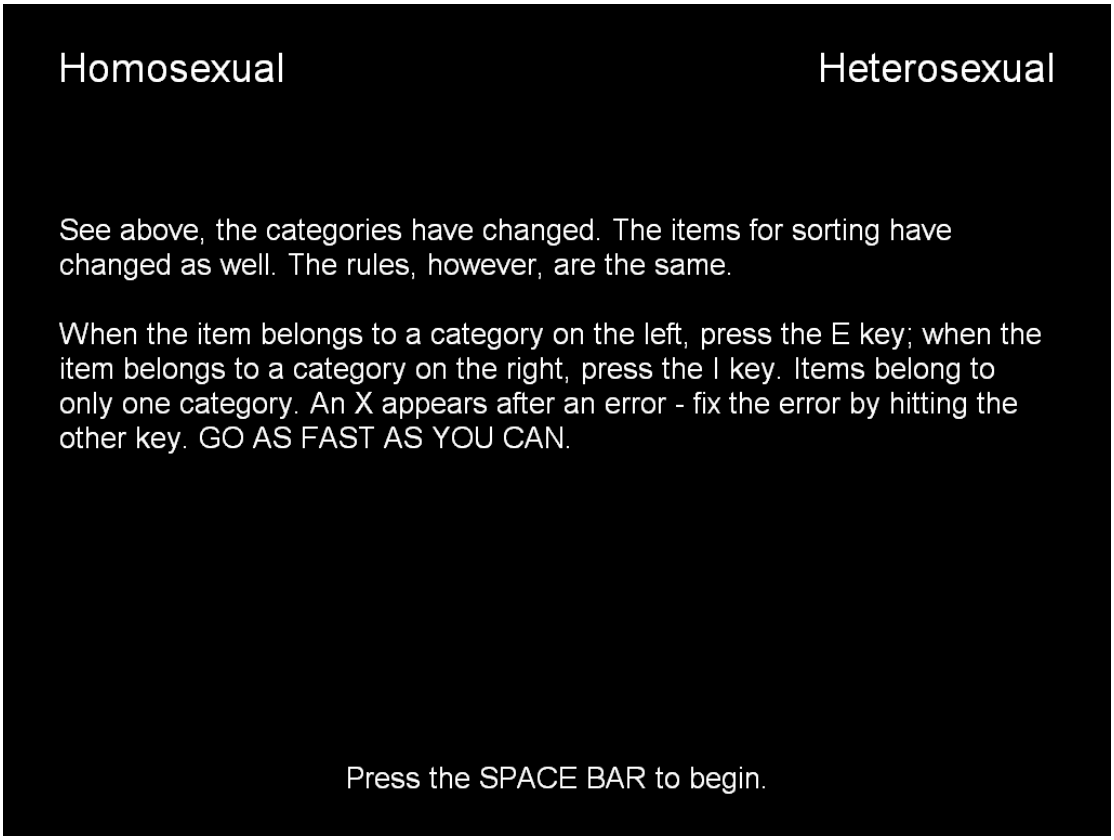




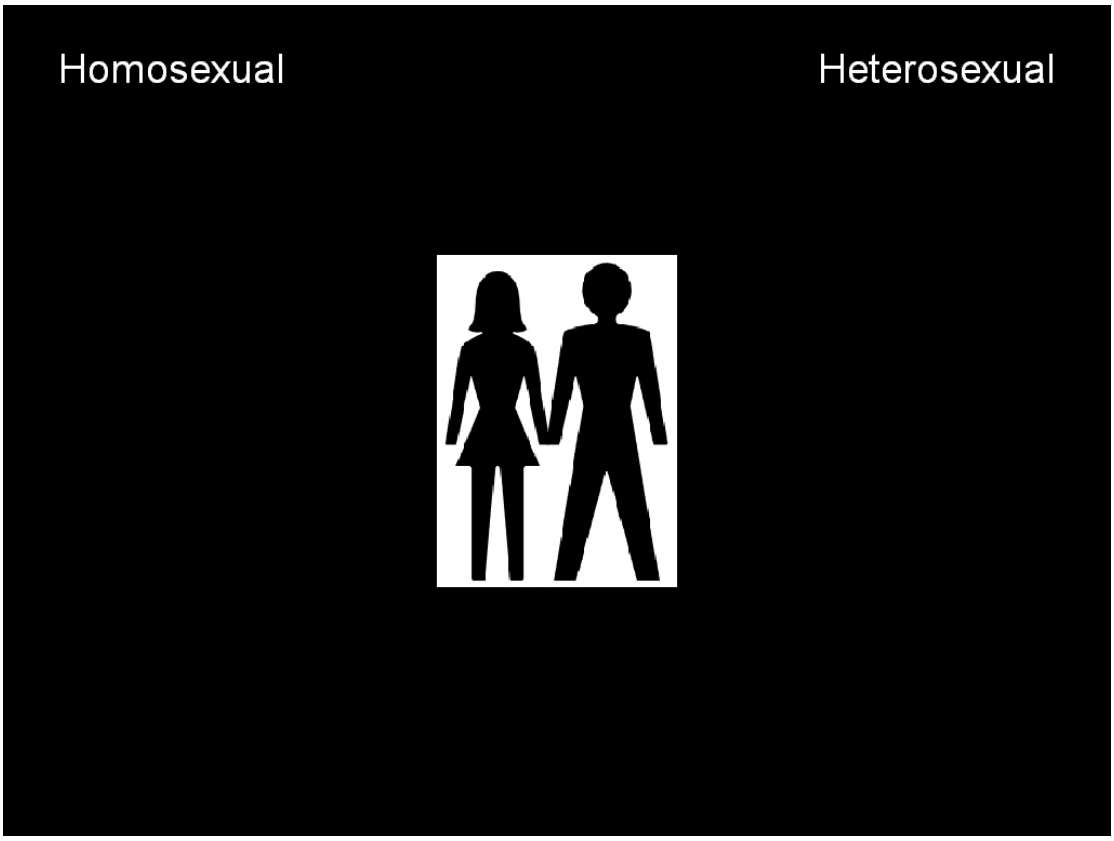

Positive Words
Negative Words
Put your middle or index fingers on the E and I keys of your keyboard. Pictures or words representing the categories at the top will appear one-by-one in the middle of the screen. When the item belongs to a category on the left, press the E key; when the item belongs to a category on the right, press the I key. Items belong to only one category. If you make an error, an X will appear - fix the error by hitting the other key.
This is a timed sorting task. GO AS FAST AS YOU CAN while making as few mistakes as possible. Going too slow or making too many errors will result in an uninterpretable score. This task will take about 5 minutes to complete.
Press the SPACE BAR to begin.

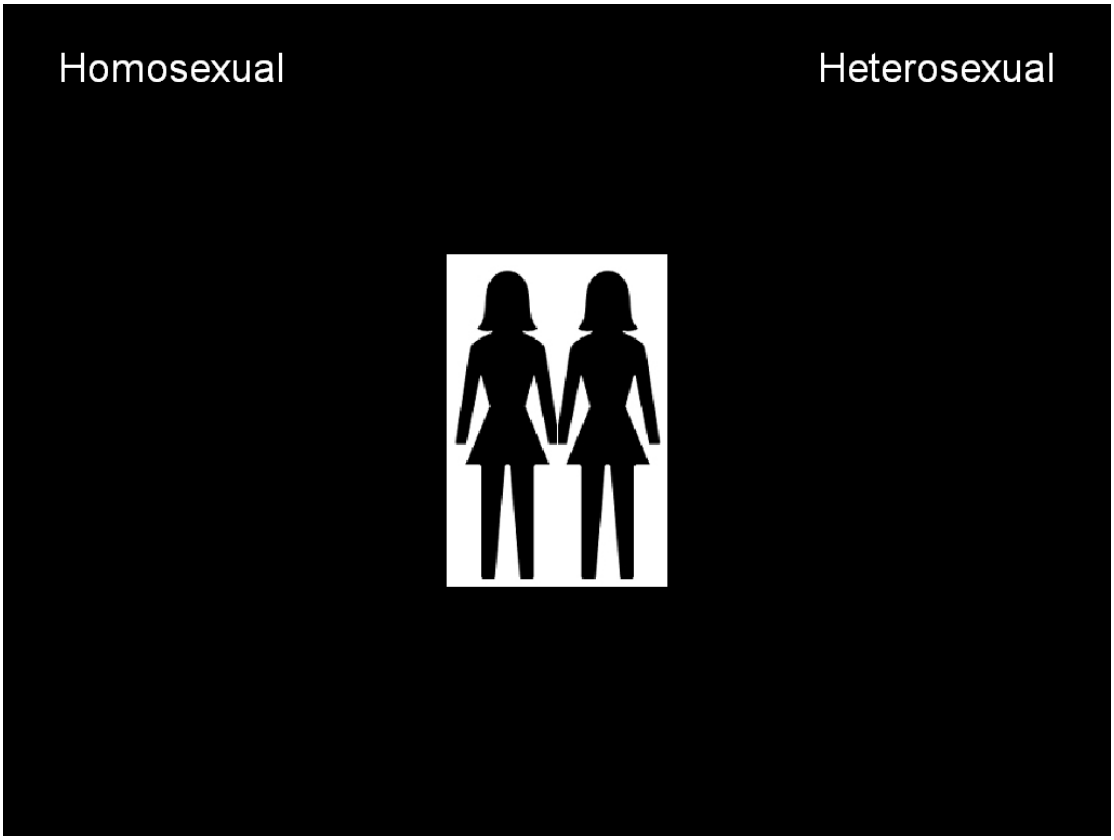

Positive Words
Negative Words
Nasty


Positive Words
Negative Words
Marvelous


Homosexual
Heterosexual
See above, the categories have changed. The items for sorting have changed as well. The rules, however, are the same.
When the item belongs to a category on the left, press the E key; when the item belongs to a category on the right, press the I key. Items belong to only one category. An X appears after an error - fix the error by hitting the other key. GO AS FAST AS YOU CAN.
Press the SPACE BAR to begin.

Appendix 2.H (cont.)





Homosexual Heterosexual

Homosexual Heterosexual

or or

Positive Words Negative Words

See above, the four categories you saw separately now appear together. Remember, each item belongs to only one group.

Use the E and I keys to categorize items into four groups left and right, and correct errors by hitting the other key.

Press the SPACE BAR to begin.

Heterosexual Homosexual

Notice above, there are only two cateogries and they have switched positions. The concept that was previously on the left is now on the right, and the concept that was on the right is now on the left. Practice this new configuration.

Use the E and I keys to catgorize items left and right, and correct errors by hitting the other key.

Press the SPACE BAR to begin.

Heterosexual or Positive Words

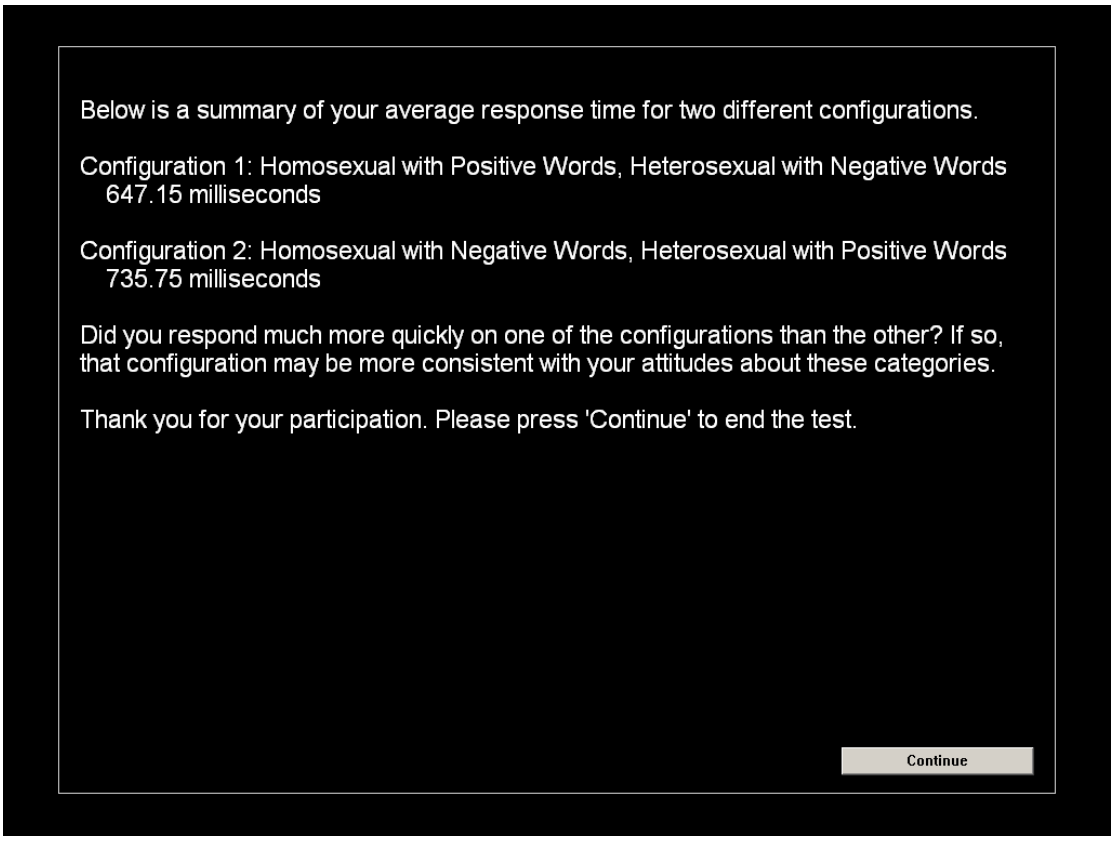
Homosexual or Negative Words

See above, the four categories now appear together in a new configuration. Remember, each item belongs to only one group.

The green and white labels and items may help to identify the appropriate category. Use the E and I keys to categorize items into the four groups left and right, and correct errors by hitting the other key.

Press the SPACE BAR to begin.

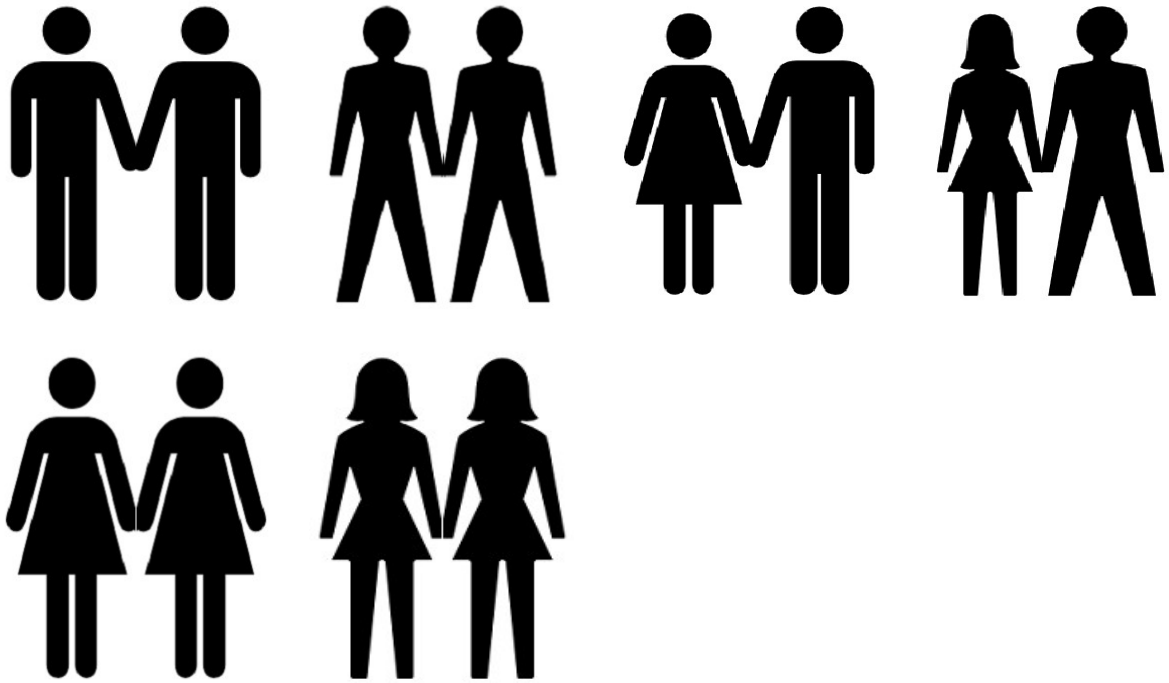
Appendix 2.H (cont.)



Appendix 2.H (cont.)

Stimuli images used for the IAT

Images reproduced with permission from Pro. Mark L. Hatzenbuehler



In: Hatzenbuehler, M., Dovidio, J., Nolen-Hoeksema, S., & Phills, C. (2009). An implicit measure of anti-gay attitudes: Prospective associations with emotion regulation strategies and psychological distress. *Journal of Experimental Social Psychology, 45*(6), 1316-1320.

Images removed to comply with original copyright requirements.

Removed images used in this study are available online from:
http://www.forbrideandbaby.com/hidden/pending/gay-marriage-whats-all-the-fuss/

Appendix 2.I

Verona Coding Definition of Emotional Sequences (VR-CoDES)

Scale removed to comply with original copyright requirements.

Please refer to original scale manual for further details:

- Del Piccolo, L., de Haes, H., Heaven, C., Jansen, J., Verheul, W., & Finset, A. (2009). *Verona coding definitions of emotional sequences (VR-CoDES). Provider responses manual.* Verona, Italy: Verona Network on Sequence Analysis.

Appendix 2.J

Liverpool Undergraduate Communication Assessment Scale (LUCAS)

Scale reproduced with permission from Dr Chris Huntley

Important notes for examiners:

- Please use the full score range (Competent-Unacceptable) where appropriate. Scoring "Competent", for one or more items so does not necessarily mean a candidate will "pass" the examination; likewise scoring "Borderline" or "Unacceptable" for one or more items does not mean an automatic "fail".

INTRODUCTIONS			
	Competent		**Unacceptable**
A) Greeting & introduction	i) greets patient, ii) states full name, iii) job title, iv) provides brief explanation why s/he is approaching the pt ☐		Omission of **any** of elements i)-iv) ☐
B) Identity check	i) checks patient's full name; ii) one other identifier (e.g. patient's D.O.B., address etc.) ☐		Omission of **either** i) **or** ii) ☐
GENERAL			
	Competent	**Borderline**	**Unacceptable**
C) Audibility & clarity of speech	☐	☐	☐
D) Non-verbal behaviour Includes eye-contact, positioning, posture, facial expressions, gestures & mannerisms	☐	☐	☐
E) Questions, prompts and/or explanations Includes: i) exploration of pt's needs, feelings and concerns & ii) comprehensibility of Qs/explanation **(N.B. this item is *not* to assess the *medical* content of history taking, which is rated in other OSCE stations, or on separate mark sheets)**	☐	☐	☐
F) Empathy & responsiveness Includes adaptation & sensitivity to patient's needs	☐	☐	☐
G) Clarification & summarising Includes elicitation of pt's queries	☐	☐	☐
H) Consulting style & organisation Includes orderliness of the consultation, balance of open and closed Qs and time management	☐	☐	☐
PROFESSIONAL BEHAVIOUR AND CONDUCT			
	Competent		**Unacceptable**
I) Professional behaviour	E.g. courteous, kind, thoughtful behaviour ☐		E.g. overly casual, disinterested, discourteous or thoughtless behaviour ☐
J) Professional spoken/verbal conduct	Remarks are: i) respectful & ii) avoid major inaccuracy & iii) within own competence & iv) reassurance is appropriate ☐		Remarks are: i) disrespectful OR ii) contain major inaccuracy OR iii) outside own competence OR iv) reassurance is inappropriate ☐

	Outstanding	**Very good**	**Competent**	**Borderline pass**	**Borderline fail**	**Not yet competent**	**Not competent**
Please indicate the student's overall performance	☐	☐	☐	☐	☐	☐	☐

In: Huntley, C. D., Salmon, P., Fisher, P. L., Fletcher, I., & Young, B. (2012). LUCAS: A theoretically informed instrument to assess clinical communication in objective structured clinical examinations. *Medical Education, 46* (3): 267-276.

Appendix 2.K

Session Rating Scale (SRS V.3.0)

Scale removed to comply with original copyright requirements.

Appendix 2.L

Clinical Vignette

Vignette used for depression and anxiety conditions, whereby words within brackets represent the alternative vocabulary used specifically for either condition.

> "Chris is an accountant and is pursuing a master's degree in business administration on a part-time basis. He lives with his male partner John. Chris was referred by his family doctor for assessment, but has never received prior psychological or psychiatric treatment. Chris says that he has felt [(low) or (anxious)] for the past 6 months. He reports [(depressed mood, decreased motivation, difficulty concentrating, increased irritability, and disrupted sleep) or (sudden attacks of nausea, perspiring, a feeling of unreality and impending doom, trembling, and shortness of breath)] several times a week. He denies suicidal ideation. Chris adds that since these symptoms have begun, he has had difficulty completing tasks for both work and course. He says that although he is fulfilling all of his responsibilities, it has been a struggle to do so lately because of his decreased motivation and ability to concentrate. Chris reports that 8 months ago he moved to a new flat with his partner. They have been living together for about 12 years and do a lot of things together, but his partner has to travel a lot for his business often being away from home for many days. Although Chris is very busy with his course and job, he shares that he is very lonely, with no close friends and only a few acquaintances. He says that he has become particularly isolated since moving to this new flat, which is a few hours from his home town where his family lives. People don't call and when John is not around he does not leave the flat to go out. He denies drug use and has no medical conditions. His father and paternal grandfather both had [(depression) or (anxiety)], and he reports that an uncle was so [(depressed) or (anxious)] that he did not leave the house for many years."

Appendix 2.M

Further demographics

Ethnicity	What phase was this study			
	study 1		study 2	
	Count	Column N %	Count	Column N %
White British	20	90,9%	77	84,6%
White Irish	1	4,5%	8	8,8%
White Other	1	4,5%	3	3,3%
Mixed ethnicity	0	0,0%	2	2,2%
Asian or Asian British	0	0,0%	0	0,0%
Black or Black British	0	0,0%	1	1,1%
Chinese or Other ethnicity	0	0,0%	0	0,0%
Rather not say	0	0,0%	0	0,0%

Sexuality	What phase was this study			
	study 1		study 2	
	Count	Column N %	Count	Column N %
Asexual	0	0,0%	0	0,0%
Bisexual	0	0,0%	2	2,2%
Exclusively Homosexual	2	9,1%	2	2,2%
Mainly Homosexual	0	0,0%	2	2,2%
Exclusively Heterosexual	17	77,3%	71	78,9%
Mainly Heterosexual	2	9,1%	13	14,4%
Other	0	0,0%	0	0,0%
Rather not say	1	4,5%	0	0,0%

Religion and/or Spirituality	What phase was this study			
	study 1		study 2	
	Count	Column N %	Count	Column N %
None	12	60,0%	26	29,2%
Christian	5	25,0%	23	25,8%
Muslim	0	0,0%	0	0,0%
Buddhist	0	0,0%	2	2,2%
Agnostic	0	0,0%	7	7,9%
Other	0	0,0%	4	4,5%
Atheist	2	10,0%	26	29,2%
Jewish	1	5,0%	1	1,1%

Appendix 2.N

Independent samples t-test for both studies

Group Statistics

	What phase was this study	N	Mean	Std. Deviation	Std. Error Mean
Time 1 IAT Mean D Scores all blocks	study 1	22	-.27527	.398733	.085010
	study 2	57	-.22157	.446047	.059080
Time 2 IAT Mean D Scores all blocks	study 1	19	-.16114	.434321	.099640
	study 2	21	-.13771	.531411	.115963
T1 Attitudes toward lesbians and gay men scale total (mean)	study 1	22	1.4773	.58259	.12421
	study 2	77	1.6883	.75575	.08613
T2 Attitudes toward lesbians and gay men scale total (mean)	study 1	21	1.4683	.60923	.13295
	study 2	29	1.6379	1.01190	.18791
T1 Social Distance Scale total (sum of all items)	study 1	22	1.5000	5.73834	1.22342
	study 2	77	1.2987	2.33433	.26602
T2 Social Distance Scale total (sum of all items)	study 1	21	.1905	.51177	.11168
	study 2	28	1.0714	2.27594	.43011
T1 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	study 1	22	1.9242	.59479	.12681
	study 2	77	2.0732	.89582	.10209
T2 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	study 1	21	2.0556	.70185	.15316
	study 2	30	2.0056	.93206	.17017
T1 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	study 1	22	3.0833	.93541	.19943
	study 2	77	3.1892	1.01357	.11551
T2 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	study 1	21	3.1111	.95501	.20840
	study 2	30	3.2833	1.19958	.21901

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Time 1 IAT Mean D Scores all blocks	Equal variances assumed	.077	.782	-.493	77	.623	-.053703	.108845	-.270441	.163035
	Equal variances not assumed			-.519	42.470	.607	-.053703	.103524	-.262554	.155148
Time 2 IAT Mean D Scores all blocks	Equal variances assumed	.975	.330	-.152	38	.880	-.023427	.154460	-.336115	.289262
	Equal variances not assumed			-.153	37.638	.879	-.023427	.152891	-.333036	.286183
T1 Attitudes toward lesbians and gay men scale total (mean)	Equal variances assumed	.308	.580	-1.209	97	.229	-.21104	.17449	-.55736	.13528
	Equal variances not assumed			-1.396	43.284	.170	-.21104	.15115	-.51580	.09372
T2 Attitudes toward lesbians and gay men scale total (mean)	Equal variances assumed	1.926	.172	-.683	48	.498	-.16968	.24847	-.66926	.32990
	Equal variances not assumed			-.737	46.675	.465	-.16968	.23018	-.63283	.29347
T1 Social Distance Scale total (sum of all items)	Equal variances assumed	1.368	.245	.247	97	.806	.20130	.81617	-1.41857	1.82117
	Equal variances not assumed			.161	23.019	.874	.20130	1.25201	-2.38856	2.79116
T2 Social Distance Scale total (sum of all items)	Equal variances assumed	10.888	.002	-1.737	47	.089	-.88095	.50721	-1.90133	.13942
	Equal variances not assumed			-1.982	30.576	.056	-.88095	.44437	-1.78777	.02586
T1 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	Equal variances assumed	2.571	.112	-.733	97	.465	-.14892	.20303	-.55188	.25404
	Equal variances not assumed			-.915	51.109	.365	-.14892	.16280	-.47573	.17789
T2 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	Equal variances assumed	1.672	.202	.208	49	.836	.05000	.24062	-.43354	.53354
	Equal variances not assumed			.218	48.688	.828	.05000	.22894	-.41015	.51015
T1 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	Equal variances assumed	.420	.519	-.439	97	.662	-.10584	.24106	-.58429	.37260
	Equal variances not assumed			-.459	36.323	.649	-.10584	.23047	-.57311	.36142
T2 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	Equal variances assumed	.817	.371	-.547	49	.587	-.17222	.31477	-.80477	.46032
	Equal variances not assumed			-.570	48.105	.572	-.17222	.30232	-.78004	.43560

Appendix 2.N

Paired samples t-test for both studies

Study 1

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Time 1 IAT Mean D Scores all blocks - Time 2 IAT Mean D Scores all blocks	-.135809	.506141	.116117	-.379762	.108143	-1.170	18	.257
Pair 2	T1 Social Distance Scale total (sum of all items) - T2 Social Distance Scale total (sum of all items)	1.38095	5.89471	1.28633	-1.30229	4.06419	1.074	20	.296
Pair 3	T1 Attitudes toward lesbians and gay men scale total (mean) - T2 Attitudes toward lesbians and gay men scale total (mean)	-.01587	.73580	.16056	-.35081	.31906	-.099	20	.922
Pair 4	T1 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11) - T2 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	-.09524	.43961	.09593	-.29534	.10487	-.993	20	.333
Pair 5	T1 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12) - T2 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	.03175	.78990	.17237	-.32781	.39130	.184	20	.856

Study 2

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Time 1 IAT Mean D Scores all blocks - Time 2 IAT Mean D Scores all blocks	.022474	.218549	.065895	-.124349	.169298	.341	10	.740
Pair 2	T1 Social Distance Scale total (sum of all items) - T2 Social Distance Scale total (sum of all items)	-.71429	2.46291	.65824	-2.13633	.70776	-1.085	13	.298
Pair 3	T1 Attitudes toward lesbians and gay men scale total (mean) - T2 Attitudes toward lesbians and gay men scale total (mean)	-.15556	.86020	.22210	-.63192	.32081	-.700	14	.495
Pair 4	T1 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11) - T2 ECR attachment questionnaire mean avoidance score (items 1, 3, 5, 7, 9, 11)	.21667	.65546	.16387	-.13260	.56594	1.322	15	.206
Pair 5	T1 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12) - T2 ECR attachment questionnaire mean anxiety score (items 2, 4, 6, 8, 10, 12)	.01042	.84868	.21217	-.44181	.46265	.049	15	.961

Appendix 3.A

NEWSLETTER ARTICLE

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This article has been published online at the Pink Therapy Blog Newsletter. It is available online from: http://pinktherapyblog.com/2013/09/18/communicating-with-gay-clients-with-mental-health-needs-how-psychologists-personal-characteristics-can-get-in-the-way/